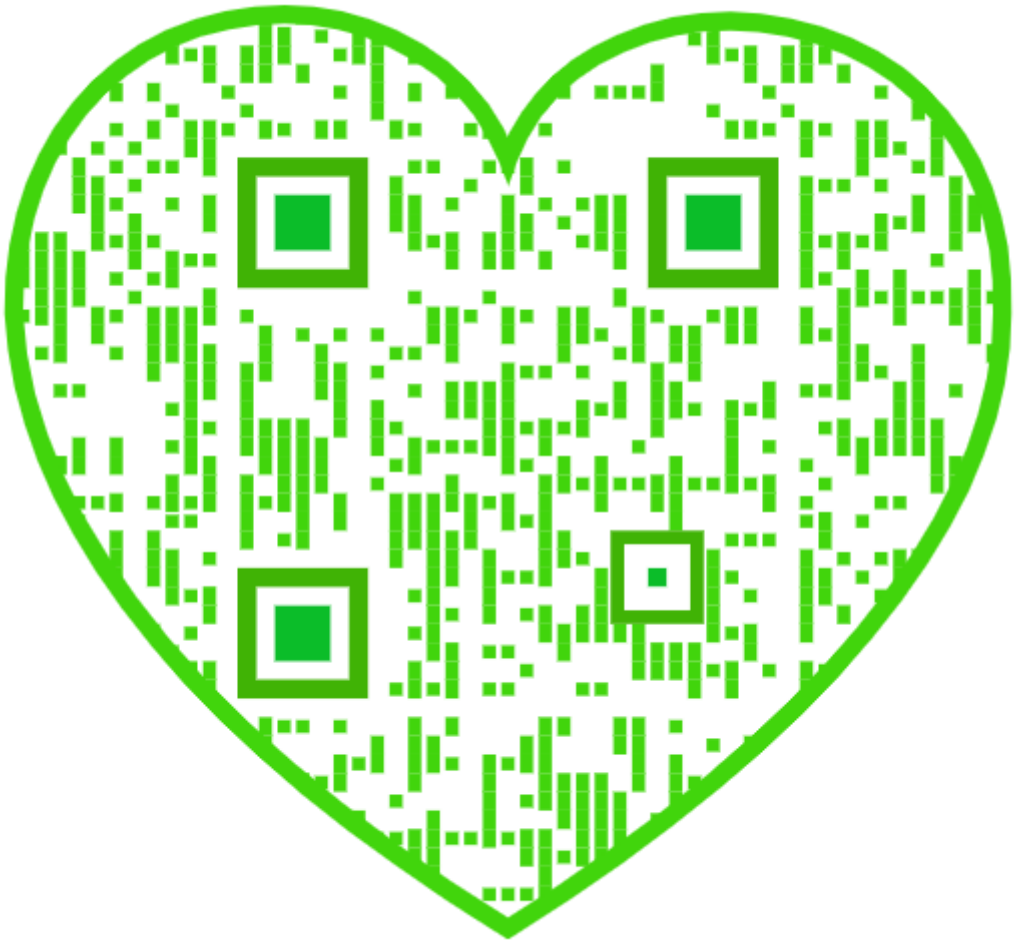
AA000482273 0



Ex Libris
C. K. OGDEN

THE LIBRARY
OF
THE UNIVERSITY
OF CALIFORNIA
LOS ANGELES

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

http://www.archive.org/details/printingforbusin00thor

PRINTING
for Business

PRINTING
FOR BUSINESS

A MANUAL *of* PRINTING PRACTICE
IN NON-TECHNICAL IDIOM BY

JOSEPH THORP
PRINTING CONSULTANT TO
W. H. SMITH & SON

MCMXIX
JOHN HOGG
13 PATERNOSTER ROW
LONDON

All rights of translation
& reproduction reserved

To

EMERY WALKER

A PIONEER OF THE PRINTING REVIVAL

IN

EUROPE & AMERICA

GRATEFUL

DEDICATION

CONTENTS

CHAPTER		PAGE
I.	Introductory and Explanatory.	1
II.	Human Relations.	4
III.	The General Methods, Idea and Machinery of Printing.	7
IV.	How a Printing Job goes through.	14
	Glossary of Type-Setting Terms.	21
	To Correct Proofs "Without Tears."	30
	Glossary of Machine Room Terms.	38
	Glossary of Engraving Terms.	42
	Glossary of Paper Terms.	44
	Glossary of Binding Terms.	46
V.	Of Type-Setting and Type.	49
VI.	Some Details of Style in Sound Printing Practice.	64
VII.	A Few Notes on Illustration and Design.	73
VIII.	A Sheaf of Practical Examples.	78
IX.	Photo-Mechanical Processes of Engraving.	93
X.	Some Notes on Paper.	117
XI.	On Book-Binding.	121

CONTENTS

CHAPTER		PAGE
XII.	The Writing of Advertisements.	130
XIII.	Of Occasional Printing for Private Use.	133
XIV.	Costs: Real and Nominal.	136
XV.	Desk Equipment.	138
	General Glossary of Printing, Engraving, Paper, and Book-Binding Terms.	146

APPENDICES.

1.	Supplementary Tables and Sundry Calculations.	153
2.	A Brief Note on Copyright.	162
3.	Memoranda Pages.	164

INDEX.	Text	177
	Illustrations	180

"Bodkin" (A) & Tweezers

PREFACE

A WORD as to how this book came to be actually written may help to explain its possible usefulness. I had known so many people, particularly men of business, and later, secretaries of societies, municipal and government officials, who were constantly using, compelled indeed to use, printing ("All business goes through the printing press"), who knew nothing whatever about the processes involved. And, knowing nothing, cared very little. It was clear to me that they must lose a good deal of business by not knowing and a good deal of pleasure by not caring. Indeed, they must also lose business by not caring, but I have tried to show that in its proper place elsewhere.

I found on enquiry that there was no sort of book that didn't assume knowledge which the wide constituency I had in mind didn't possess. In America, indeed, I discovered that the Stanhope Book Press had thought it worth while to issue to their publisher customers some information about paper and engraving processes, and the Plimpton Press had taken the trouble to explain some technical terms. I found nothing covering the ground that it seemed to me desirable to cover.

My chief qualification for taking upon me this considerable task is that I really don't know too much about it. The trouble with the technical folk is that they do. Or they know a good deal about their specialized job, say printing, and nothing much about engraving or book-binding; or, very commonly, are technically proficient, but too busy to bother with the æsthetic side. I happen to have been interested in all and every side of it. I was pitchforked by fate into printing at a maturer age than falls to most, and I have learned to bless the fork that pitched me. I poked about the machine and composing rooms of the Arden

Press in its very modest early days; set to work picking some very excellent brains, such as those to whose owner I have gratefully dedicated this book; went "on the road" for W. H. Smith & Son, at their Fetter Lane Press; then was set to the more special task of writing and designing printed matter, which I have done ever since; of late years in a more independent and casual way.

This book remains, then, the work of an amateur I hope not too ill-equipped; of an *amateur* also in the essential meaning of "a lover." For I don't know anything in the way of a hobby that I'd now put before the designing of a book and the jolly business of watching it all gradually fall into place till the whole appears complete and orderly.

If you, reader, glancing through these pages, would like to begin where the pictures begin in Chapter III, pray do so. You might do worse. Read Chapters III and IV with care, and I'll guarantee that you know something interesting about the subject, and I have a hope that you will be lured on to other sections, even perhaps to the point of reading from cover to cover. If you do, put that down to the craft, not to me.

Beyond the acknowledgments which I have made in the text, I wish to thank particularly my friends Mr. Frank Goeby, Mr. Bernard Newdigate, and Mr. Hugh Hunter for help in proof reading and other ways. I should like to say also how sensible I am that this would have been a duller and less informing book if it hadn't been for the admirably drawn illustrations of Mr. G. A. Hammond, himself a practical printer who knows what he is drawing about.

I have also to make acknowledgment to my old firm, W. H. Smith & Son, for permission to use many examples from the work of their press, without which the book would be far less complete.

In the book as originally planned a chapter on the constitution and prices of various papers was included. Chaos reigns in the paper market, and prices have soared to incredible heights. Till some sort of balance has been established the chapter will be only misleading. I have therefore suppressed it. Such prices as are quoted in the chapters on engraving and bookbinding will still be of service as relative guides, so I leave them. Revision is impossible at the moment.

It will be noted that the Glossaries given under the sections Type-Setting, Machine Room, Engraving, Paper and Binding in Chapter IV are repeated at the end in the re-arranged General Glossary.

Will intelligent amateurs, then, take from an amateur this modest attempt to give them a better understanding and an appreciation of a noble and indispensable craft? In doing this little piece of work I have tried to pay back some of my debt for many jolly hours and many pleasant friendships.

J. T.

Decoy,
Arundel.
1919.

CHAPTER I

INTRODUCTORY AND EXPLANATORY

MEN of business, secretaries of political and professional organisations, of learned and entirely unlearned societies, church and school authorities, officials of all manner of clubs, publishers and authors—a veritable host of responsible folk—are constantly using printed matter in the normal course of their work.

A very little knowledge of printing processes and the best traditions of printing practice would enable them to make much more effective use of this indispensable servant.

A working knowledge

It is the object of this volume to give an elementary knowledge of printing, of the working arrangements of a printing office, of paper and type, and engraving processes, which will enable more knowledge to be readily acquired by the mere routine connection with the production of printed matter. Without some such first general survey much that would be readily intelligible is entirely missed. It may safely be said that such knowledge enormously increases the interest of one's work in this direction and turns a piece of tiresome extra business routine into an interesting interlude.

The truth is that the buyer of printing has always, from the nature of the case, to co-operate with the printer in the process of manufacture. Printed matter is rarely if ever made precisely to sample. It is usually freshly planned. A good deal of printed matter is designed

deliberately to attract favourable attention; a good deal more of it, I mean, than is explicitly recognized under the term of advertising matter. *All* of it *ought* to be so designed.

Customer and Printer partners

The fact is—the fact which is the real begetter of this volume—that the non-printer, the intelligent layman, may with a very little training and guidance become an effective, even a predominant partner in the production of his printed matter. I mean that if, as frequently happens, he is a man of natural good taste and appreciation of beauty and seemliness, say in furniture, or house decoration, or architecture, or dress, he may, by the simple process of having his eyes turned in the right direction towards the excellent examples and the characteristic precepts which are the privileged possession of every craft, be enabled to use those excellent qualities in this direction of printing.

And, lest I be suspected of being about to ride a hobby too furiously, let me say that I propose to keep a frankly utilitarian end in view—so that business men shall get more business, the secretary more members or subscribers, the official be more efficient and appreciated.

The so-much per 1,000 *view*

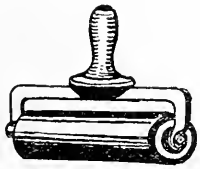
I will certainly promise that the buyer of printing who has this amount of knowledge at his command will be better served by his printer than before. The keen printer's representative of the right kind, who suddenly finds a customer who has the intelligence and knowledge to be *interested*, becomes your devoted servant. You need never bother with the other kind of representative who looks upon printing as the manufacture of so many parcels at so much per 1000—because that it emphatically is NOT.

As for method; assuming the natural reluctance of healthily-minded men to plunge into the dismal and dismaying complexities of technical explanations, I propose to carry such explanations no farther than is absolutely necessary; to make no attempt to be complete or thorough, which would defeat the end I have in view by discouraging and confusing the reader; to explain enough, but not all terms; to make repetitions rather than to send him hunting about the volume; in fact to coax the reader instead of supposing him to be bursting with desire to get to the bottom of the whole wide craft. Thus he may be led a useful way down into it.

Proof-correction without tears

As an instance one may take the scheme of printers' marks for proof-correcting which is passed down by tradition. That is well enough for the printer's reader or the frequent author, but the layman shies at it; the man of business does not need it all, and the first general view of it anyway is so discouraging that he turns aside to more amusing things. It can be simplified with advantage (see p. 30), and anyone with a little good will and energy can master it at a glance and entirely "without tears."

Again, all healthy folk prefer explanatory pictures to explanatory text. I commend the intelligent diagrams in this volume to the reader with the promise that they contain with their notes a great deal of information and suggestion in a small compass.



Hand Inkroller.

CHAPTER II

HUMAN RELATIONS

Also Prefatory, but not without significance

BETWEEN printer and customer two attitudes are possible, and both are found in current practice. The first is that of mutual distrust—leading to close and often not by any means quite honest beatings down of price on the part of the customer with, on the printer's part, an endeavour to get back some of his own by some little piece of sharp practice made possible by his customer's ignorance.

There's a sort of defence set up for this kind of relation. This kind of buyer thinks it legitimate to bluff on price, as it is up to the printer to refuse the work if he doesn't want it. And moreover, he looks upon the buying of printing as he would on the buying of any other commodity, such as rolls of galvanized wire netting. In the first of these assumptions he must be his own judge. In the second he is unquestionably wrong.

Kindliness and self-interest

To get the best printed matter for one's purpose the buyer needs to be in a decent personal relation with the printer or his representative, because only by an intelligent co-operation between them is the best result possible. Printers are human; and it's only natural to put more energy and devoted service into work for a decent fellow than for the other kind. Apart from this, too, there's a cruder, more substantial reason. A traveller isn't only a traveller, he's also a man. He meets with

other men; may have considerable influence. The tobacconist who was the first man of business to treat a certain printer's traveller in his first very difficult and largely unsuccessful weeks with courtesy, to give him a chair, to provide him with the best possible of cigarettes, to let him tell his story and (convinced) to give him a modest order, must owe many pounds of direct and still more of indirect orders to that kindly interview.

The biter bit

On the other hand that scallawag in quite another trade who, later, putting the same traveller to considerable trouble in estimating, in interviews and dummy-making, finally used the ideas, copied to the best of his ability (which was not excessive) the design and printed the work elsewhere, must have lost a good deal more than the difference in price if sincere de-recommendations are of any avail helped by the destruction of that offending catalogue wherever it has been met with by the traveller aforesaid in hotels. Happily business men are not commonly so unfair nor travellers, perhaps, so vindictive! But

"*make the traveller your friend*"

is no bad maxim. Nor is another, of American origin—to see every man at least once, judge him acutely in that interview and issue orders accordingly. It is well not to leave all the discretion in these matters to the office boy or clerk who is apt to be quite unduly impressed by spats.

There are many reasons for considerate treatment of the printer. No manufacture, I think literally none, is so consistently complex. There are, broadly, no patterns. Every job is a fresh job. A score of accidents may happen to mar the work at any stage. Impossible things are expected of the printer in regard to time, and he is often bullied into promising the impossible.

A knowledge of printing processes, and of those points where special difficulties occur, some idea of the time taken by various operations, will, while informing the customer, materially help the printer. In any case there's nothing gained by the making of mysteries. Speaking as a printer I should say that the more the outsider knows the more intelligent will be his co-operation; and in general the more sympathetic and considerate he will be, the more appreciative of a loyal service.

Here, then, is the second and more mutually profitable relationship between customer and printer, the antithesis of the antagonistic theory.

Co-operators or antagonists

The more intelligent and well-informed customers there are, the more the trade—and the customers—will benefit. Interesting experiments will be made and paid for. It need not be denied that the printer, pre-occupied with the extraordinarily burdensome and exacting detail of his craft, is not too keenly on the look-out for new ways. Honestly, it is hardly to be expected, though in rare cases it is found. But clever, exigent men of business, advertising men, organizers and the like, by the demands they make and the problems they propose lift the general level of accomplishment in the trade. They will make more and more reasonable and practicable demands the more they know. Inspiration, that is to say, is necessarily largely from without. It should be welcomed by the printer, not resented. We very much need such liftings. Our grooves need filling up and cutting anew.

These notes about printing and its allied processes are, I hope, fitly preceded by these few words on the human relationship between the printer and the customer. As is usual in failures of mutual appreciation, the cause is largely mutual misunderstanding.

CHAPTER III

THE GENERAL METHODS, IDEA AND MACHINERY OF PRINTING

PRINTING may be defined for our purposes as a process for multiplying copies of an original by inking a prepared surface and transferring the impression to paper or other material. Inkless printing by electric current on a chemically-treated paper has actually been achieved but is not yet generally practicable.

There are three main methods of printing classified according to the nature of the printing surface.

Relief *or* Letterpress *Printing*

where the printing surface is raised or in relief (and in reverse as in all printing. The rubber stamp is the simplest example of this; also ordinary printing from type, as in the text of books or newspapers and the normal illustrations (see *line blocks, half tone blocks*) in both, where the revolving ink rollers do more speedily and effectively the work of the flat inking pad. The collotype plate which prints from the reticulated surface of light-hardened gelatine is the most delicate example of relief-printing modified by the lithographic principle.

The Lithographic, Flat Surface, *or* Plano-graphic *Printing*

depends essentially on the mutual antipathy of grease and water. The design is drawn in reverse (or transferred in reverse from a drawing) in greasy ink. The

stone (now also plates of zinc and aluminium with prepared surfaces) takes up the ink. The stone is sponged or rolled with water. Where the greasy design is the water takes no effect, but it moistens the rest of the surface. When the inked roller passes over the stone the greasy parts take up the ink, the moist parts repel it. The paper takes the impression after each inking. Successive waterings, inkings (that is, coloured greasings) and printings allow copies to be produced indefinitely and of an astonishing accuracy. Every colour needs a separate stone. Photography is, of course, used in transferring reductions and enlargements, yet not so as to degrade the essential features of this fine process.

Intaglio *Printing*

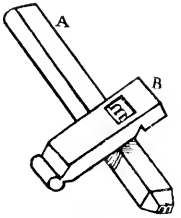
(and incidentally one would plead for the pronunciation intál-yo as against the anglicized intág-lyo which converts a beautiful word into a barbarous) where the design or lettering is cut or etched, (i.e. bitten in with acid), into or cut out of (not raised upon) the metal plate in reverse, the cuts or scratches being filled with ink, the plate carefully wiped and the paper as it were pressed into the ink channels. The ordinary engraved visiting card is a simple example of this process. The essential difference between this and the *Letterpress* and *Flat Surface* processes is that while in those two processes an even flat layer of ink is applied to the printing surface, in the *intaglio* process there is the added dimension of depth of ink. The intaglio plate can "carry" (and convey to the paper) more ink, and you can clearly feel with your finger the raised impression on your visiting card as contrasted with the flat impression on this page. On the other hand the very finest scratch on a copper or steel plate will hold

ink enough to print. Hence the range of tone, the combined strength and delicacy of this method.

Etchings, Steel Engravings, Aquatints, Mezzotints, Photogravures are all intaglio processes, as is also the mechanical Photogravure and Rotogravure now so capably developed.

The Offset *Process*

may be said to be a combination of all three of the above methods. Its essential feature is that the impression is conveyed to the paper not directly from the plates or type, but indirectly through a cylinder of rubber which takes up the impression from the type or plates, either relief or intaglio and transfers it to the paper. Its conspicuous advantage is that on papers of rough texture, even canvas—there is an incurable tendency among printers to print on inappropriate materials! fine half-tone work can be printed. This process happily promises the elimination of that clay-compounded, unpleasantly shiny, brittle, relatively expensive and quite easily perishable material called by a double exaggeration of courtesy "Art Paper." The disadvantage at present is a certain lack of depth and brilliancy, a defect which, no doubt, the ink makers will shortly remove.



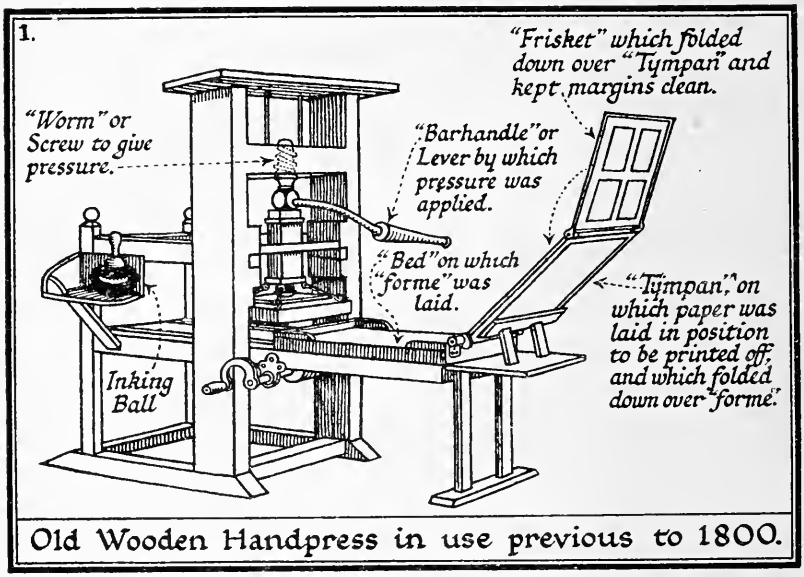
Punch (A) & Matrix (B)

TYPES OF PRINTING MACHINES

There are three main stages in the evolution of printing machines:

A. *With both paper and printing surface flat.* This class includes:

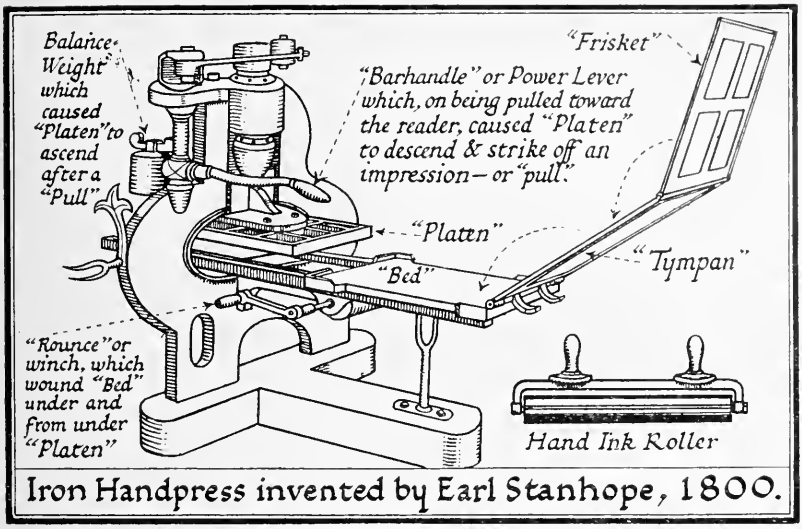
1°. The *original primitive handpress* of wood. The printing surface (woodcuts or type originally cut in


1.
"Frisket" which folded down over "Tympan" and kept margins clean.
"Worm" or Screw to give pressure.
"Barhandle" or Lever by which pressure was applied.
"Bed" on which "forme" was laid.
"Tympan," on which paper was laid in position to be printed off, and which folded down over "forme."
Inking Ball
Old Wooden Handpress in use previous to 1800.

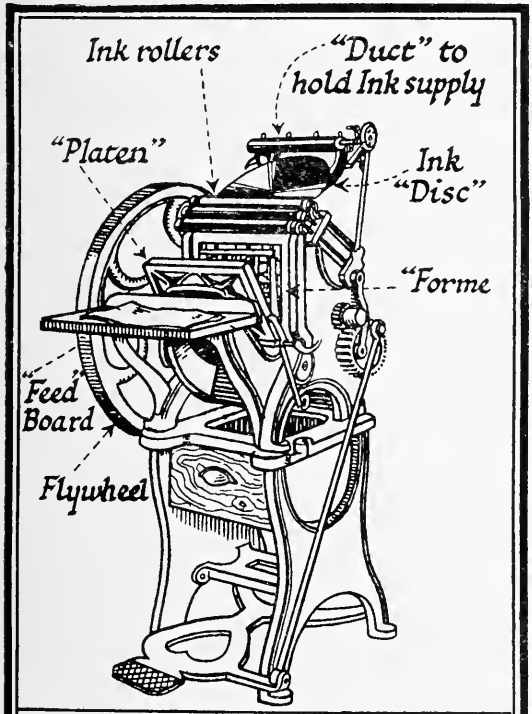
reverse from solid panels of wood) was inked over with an ink ball or ink pad of leather: the paper laid carefully upon it; and pressed down by means of a screw much as an old-fashioned linen press or a letter-copying press.

2°. The *hand-press with lever* (Lord Stanhope, *circa* 1800) instead of screw; still used for rough proofs. As also for the finer book-work of the private presses (Kelmscott, Doves, Ashendene, etc.) chiefly because it allows of richer inking. The inking is done by hand with a roller.

3°. *The machine platen-press.* The simplest of the power


Balance Weight which caused "Platen" to ascend after a "Pull"
"Frisket"
"Barhandle" or Power Lever which, on being pulled toward the reader, caused "Platen" to descend & strike off an impression – or "pull."
"Platen"
"Tympan"
"Bed"
"Rounce" or winch, which wound "Bed" under and from under "Platen"
Hand Ink Roller

Iron Handpress invented by Earl Stanhope, 1800.



Treadle Platen Machine.

presses. Here the paper is laid on a flat bed (the platen), the platen is raised, carries the paper to the inked forme and lowers itself again to allow the machine-minder to take off the printed copy and lay a new sheet. This form of machine is used for smaller work whether from type or plates in monochrome or colour.

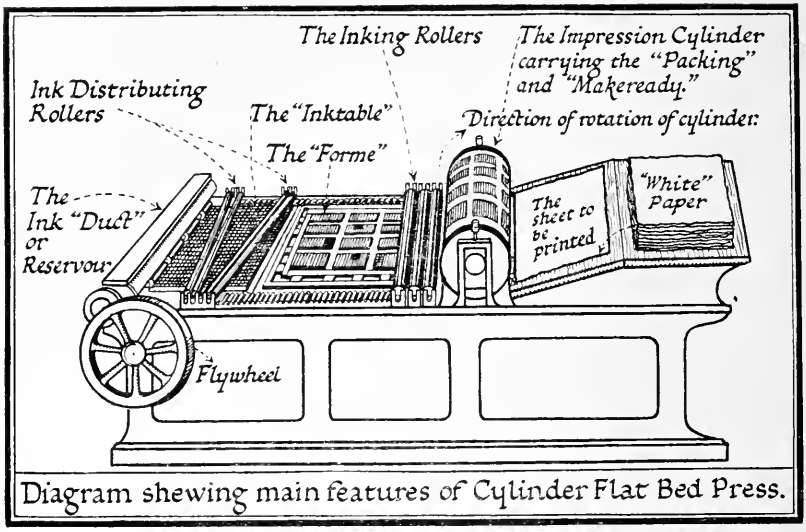


Diagram shewing main features of Cylinder Flat Bed Press.

B. *With printing surface flat,* and moving back and forth, the paper applied by revolving cylinder (König circa 1811). They are called flat-bed cylinder machines. The development is one of speed, and size of forme and paper that can be handled.

C. *With both paper and printing surface cylindrical.* A further development of speed first designed to meet the exigencies of newspaper production by giving rotary motion to both paper and printing surface. This printing surface may be:

a. *Plates cast* (stereotyped) *in semi-cylindrical form* and affixed to the type cylinder as in the great newspaper presses.

b. *Aluminium or zinc "lithographic" plates* similarly curved and fixed.

c. The *rubber cylinder of the offset* machine, which takes up its impression from the flat and transfers it to the paper.

d. The *etched curved cylinder* in use for mechanical rotary photogravure.

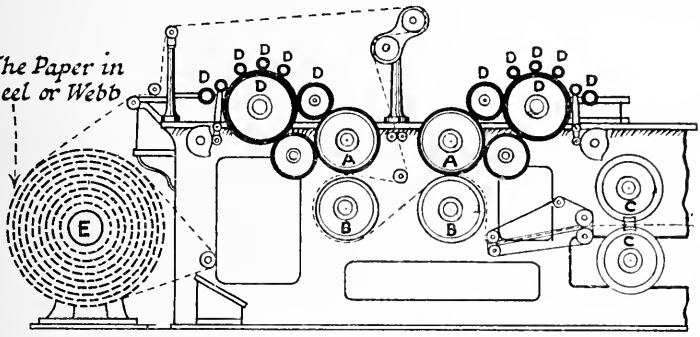


Diagram showing main features of a Rotary Press.

THE "forme" (A) and impression (B) cylinders are arranged in the centre of the machine, the printing surfaces being placed on top. The action being briefly as follows: The paper (E) after being damped, is conducted to the first impression cylinder (B) over small rollers which eliminate any creases, when it is printed on the first side. It is then passed to the second impression cylinder and is printed on the reverse side. Thus perfected, it is carried along to the cutting cylinders (C).
(D) The inking cylinders with their respective vibrating & inking rollers, the cylinders acting as distributing surfaces.
The dotted line indicates the route taken by the paper.

The proud legend "Steam Printing Works" still survives in the country, a far-off echo of the admirable König! Printing machines in a modern plant are worked by separate electric motors. Working from shafting wastes power, is noisy and causes undesirable vibration.

The most interesting developments of printing at the present time are taking place in the perfection of the rotary intaglio photogravure, which it is thought may become the universal method for fine illustrated papers and excellent catalogue work; and with the off-set process. Innumerable supplementary devices, supplanting human labour, such as the automatic feeding of the paper into the machines, have, of course, been evolved. But this treatise deals with essentials only.

CHAPTER IV

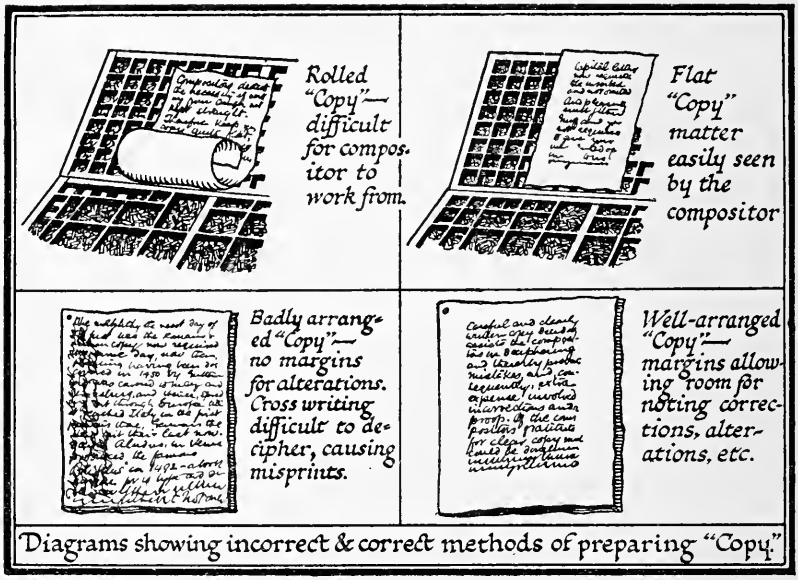
HOW A PRINTING JOB GOES THROUGH

FOR the sake of simplicity and definiteness let us consider an ordinary letterpress "job" printed from a raised or relief printing surface—type, line and half-tone plates ("blocks"), stereotype ("stereos"), electrotypes ("electros"), on a flat-bed cylinder press or the platen press; such a "job" as a book or catalogue.

THE "COPY"

Normally some manuscript or type-written document ("copy") will be sent by the customer to the printer.

Don't roll your "copy"; fold it flat. Otherwise it curls and hampers the compositor or "comp."


Rolled "Copy"— difficult for compositor to work from.
Flat "Copy" matter easily seen by the compositor
Badly arranged "Copy"— no margins for alterations. Cross writing difficult to decipher, causing misprints.
Well-arranged "Copy"— margins allowing room for noting corrections, alterations, etc.
Diagrams showing incorrect & correct methods of preparing "Copy."

Paper shouldn't be too large, something about or under 8 in. × 11 in.; easier to handle by the "comp."

There should be a reasonable margin, 1½ inches at least, for corrections, additions, instructions.

Write on one side of the paper only, and legibly.

Number the sheets consecutively.

Fasten only loosely together, as your work may be parcelled out among several men for speed's sake.

Put a ring round any words (instructions, queries or explanations) which are not to be printed.

If there's any considerable addition which cannot be written between the lines, write it in the margin, ring it round and carry a line from it to the place of insertion.

To count number of words in copy: count the words in each of say ten lines and divide total number of words by ten. This gives you the number of words in each average line.

Write copy exactly as it is to be printed. Use no abbreviations.

In calculating numbers of words make an allowance for exceptionally short paragraphs.

Do not divide a word at the end of sheet.

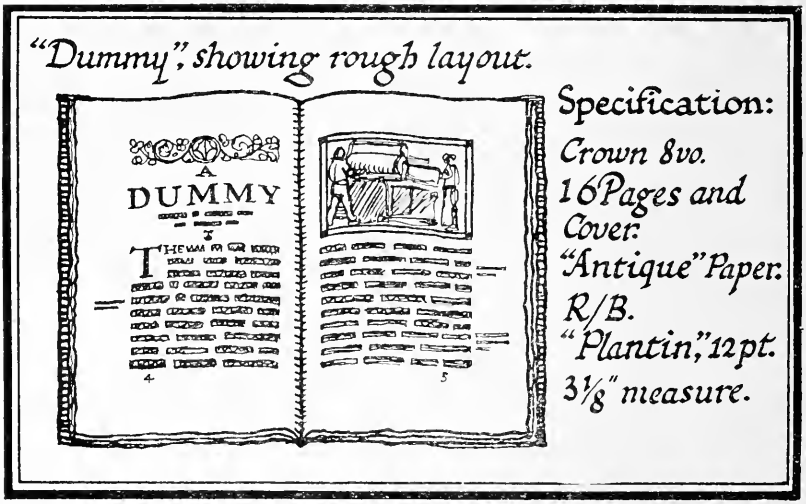
Ring round full-point and colon to distinguish from comma and semi-colon.

THE SPECIFICATION

The multitudinous details of a printing job will normally be reported to the order office of the printer through the representative or traveller. An intelligent traveller is a valuable business ally and deserves fair and friendly treatment from the customer.

The traveller will, after he has learned the requirements of the customer, bring to him a blank book or "dummy" and an estimate of cost. The "dummy" will show the paper to be used for the text and the cover,

and may contain a rough suggestion of the decorative treatment and of the plan (or "lay out") of the page.



Co-operation in production

The inexperienced buyer will, except in the matter of price, where the primitive and misleading instinct of buying cheap will protect him, be as wax in the representative's hands, and there is a certain school of printing thought which would gladly have him remain in this malleable condition.

This manual is based on the opposite assumption that the more the customer knows the better for both customer and printer. Of course there will be tiresome people who will air their little knowledge in the wrong place and be a nuisance. But there are tiresome people who are this kind of a nuisance without having the knowledge to air! And though, in a word, on the technical side the technical man should have his way, there's a large area where the taste, the judgement, and the growing knowledge of the customer does and should come in to the great advantage of both. After all Printing's a Craft, not a Mystery!

THE WORK SHEET

All the details of the specification are analysed in the order office of the printing house and noted on a work sheet which follows the job right through from the

composing room (case room) where the type is set, to the
engraving plant where the plates are made, to the
paper warehouse, the
machine room, where the work is printed, the
binding rooms, where it is sewn or stabbed (alas !) or wire stitched, the
guillotines which trim it, the
packing rooms, whence it is despatched.

THE CASE-ROOM

For hand-setting (as opposed to machine composition) the "comp." works standing at a desk (frame) which holds his cases of metal type. He transfers from the case the letters he requires, the "spaces" and quadrats (quads) (a larger sort of space), to a little metal hand-tray ("stick"), and therefrom, a few lines at a time, to a larger tray ("galley").

The galleys hold the type in long columns before being made up into pages, and rough proofs taken on a long slip from type at this stage are called galley-proofs or slip-proofs.

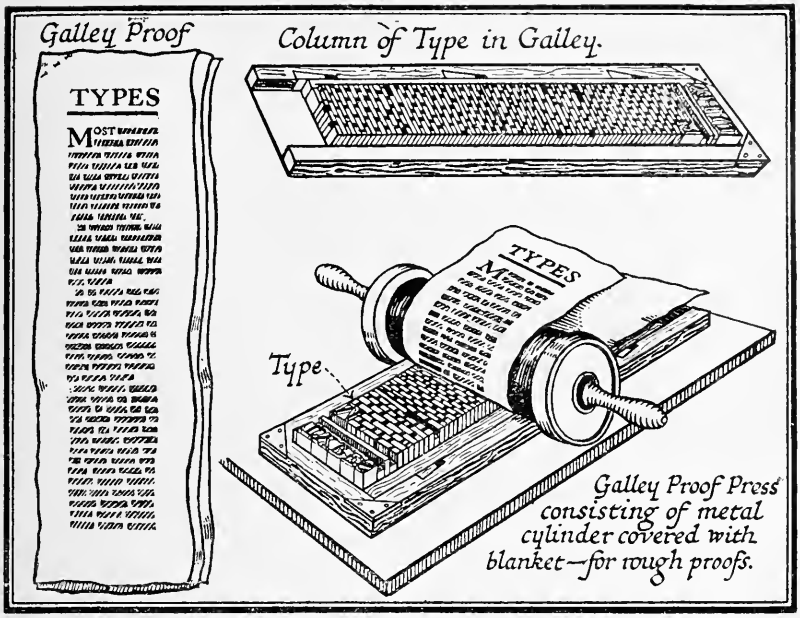
Type in Composing "Stick"

He should set roughly about 170 words of type in an hour of straightforward work—"solid composition." For "display" work, of course, where different sizes of types are used together with rules, borders, and ornaments, he will have to spend time in getting various materials together for setting and spacing, in designing and adjustment. Columns of figures and tables generally (tabular matter) take considerably more time than of straight setting and are charged accordingly.

Material for spacing between words is called *spaces*; for filling up lines, *quadrats* or *quads*; for between lines, *leads*. For the margins it is called *furniture*, including *reglets*, etc.

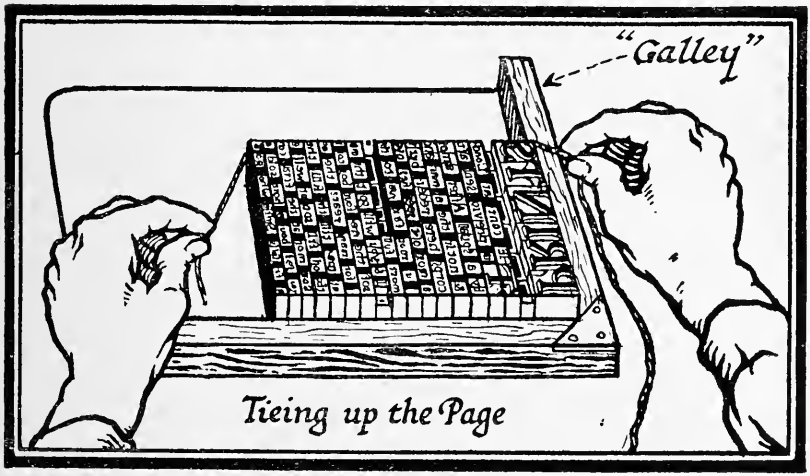
In the case-room the matter thus set up in galley form is also made up into pages with the blocks for the illustrations inserted and all but the very minutest

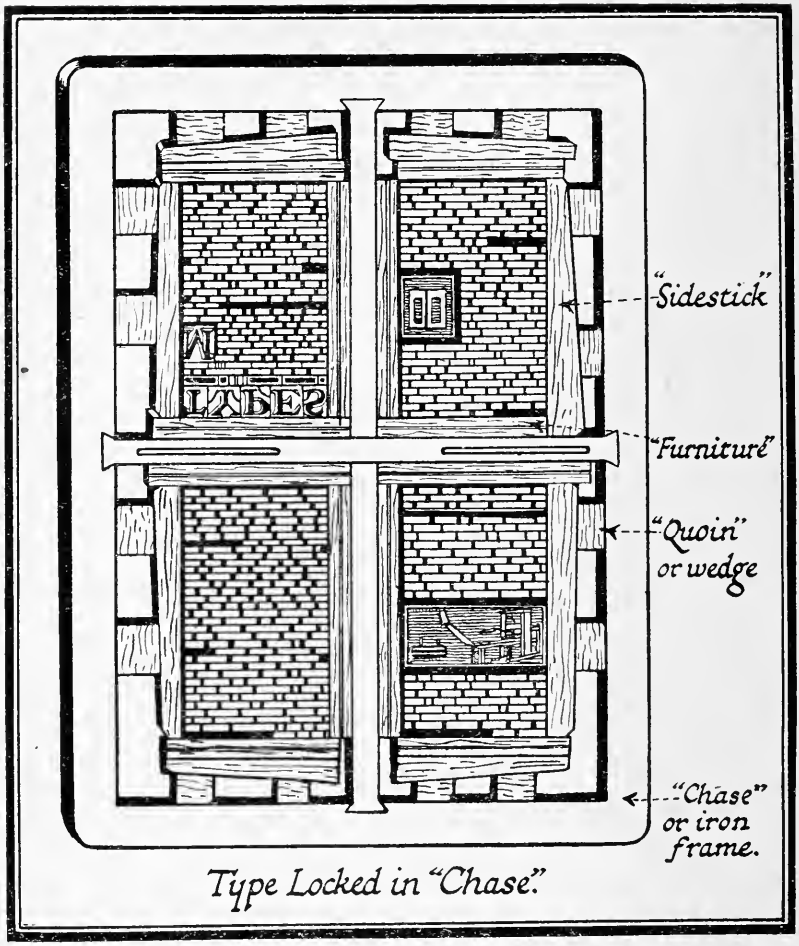
Lifting Type from "Stick" to "Galley"



adjustments which may be necessary later on the machine carefully made.

These adjustments determine the size of margins, the accurate "backing" of pages (the type panel of one page should coincide with the panel of the matter on





Type Locked in "Chase."

the other side of the same leaf); if the work is printed in more than one colour, the printing of the colours in their exact place. This adjustment is called *register.*

The type matter so made up is called the *forme.* This consists of a metal frame (*chase*), into which the actual printing material (the type, blocks and rules), together with the spaces and quads, and the "furniture" of wood or metal which allows for the spacing of the margins, etc., is wedged by wooden or locked by patent metal "quoins."

TYPE & TYPE-SETTING TERMS

Ascending Letters: lower case letters with upstrokes as b, d, f, h, k.

Ampersand: the abbreviation for "and" = &.

Arabic Numbers: ordinary numerals, 2, 3, 4, as distinguished from Roman II, III, IV.

Black Letter: Old English, Gothic or Ecclesiastical type.

Body: base or shank of the type on which the face is raised in relief. See diagram page 52.

Box: type in an enclosing frame of rules is said to be boxed.

Brass Rule: strips of brass type-high with printing surface. Used for straight lines, columns, borders.

Clean Proof: A proof in which there are few corrections. (Opp. to dirty proof.)

Colophon: printer's device or note relating to circumstances of production put at the end of book.

Composition: type setting.

Condensed Letter: narrow, or elongated type.

Copy: applied to MS., typescript, etc., from which the printer sets up, or drawings, photographs, etc., which the engraver reproduces.

Descending Letters: lower case letters that extend below the line, as g, j, p, q, y.

Display: used in opposition to "straight setting" of type arranged for display or advertising purposes.

Distribute ("Diss"): to break up forme and put back type into its proper cases.

Dummy: The rough book showing size and general arrangement of the contemplated book or booklet.

Em: (1) Printers' general measure = $\frac{1}{6}$ of an inch.

(2) The square of any type *body*. Roughly the space taken by the "m" of the *fount*.

Em quadrat ("quad"): an em quad forms a space the width of an M. One em quad = two ens.

Fount: a fount of type is a full set of types. Caslon O.F., Plantin, Westminster, Decoy are different founts of type.

Full face: a letter without beard—titling letter.

Galley: shallow tray of wood or metal to take the set-up type before paging. See p. 19.

Hanging par (hanging *indention*): where the first line of matter is wider and hangs over succeeding lines, as in this par.

Imposing stone: flat stone or steel surface on which formes are arranged and locked for press.

Imposition: arrangement of the pages in the *chase* so that they fall in the proper *register*.

Indent: to put a quad or space at the beginning of a paragraph.

Kerned letters: kern, the overhanging part of a letter in some founts of type, especially old face and italics, e.g. Qu.

Lay-out: a rough plan or design of a book, advertisement or other piece of printed matter.

Leads: (pronounced *leds*) metal strips of varying thickness, less than type-high, to separate the lines of type, etc.

Leaders: (pronounced *leed*-ers) dots or dashes set in lines to carry the eye to figures, etc., e.g. in contents tables.

Linotype: type-setting machine, with caster and keyboard combined. Sets type in lines; casts in lines or "slugs" from a collected line of matrices; then distributes the matrices.

Lower Case: Refers to the small letters which are in the case nearest to the compositor, the capitals being in an upper case of the rack.

Make-up: (1) the make-up or "*lay-out*" of the book shows the general arrangement of pages, illustrations, etc.; (2) also refers to making-up the set type into pages, etc., on the stone.

Measure: the width of a page of type. Printers reckon in Pica ems; amateurs may more conveniently and quite satisfactorily reckon in inches.

Monotype: a machine comprising separate caster and keyboard; sets type in single characters. Keyboard operates mechanism which punches a paper spool; spool transferred to caster operates the casting pneumatically.

Pica: (1) old name of size of type equal to 12 pt.; (2) printer's standard of measurement: a Pica is $\frac{1}{6}$ in.

Preliminary: refers to all the matter, half title, title, preface, contents, introduction, copyright notes, etc., coming before main text of book.

Point: unit of type measurement approximately = $\frac{1}{72}$ in.

Quadrats ("quads"): large metal blanks to fill up short lines.

Roman: the normal form of type as distinguished from italic; and from fancy types.

Rule: strip of metal, type-high, for printing borders, lines, etc. Distinguish from *leads* used for spacing.

Serif: the fine lines at the top and bottom of a letter, inclined to be rather straight and mechanical in modern types, slanted and freer in Old Face and Old Style. **Sans-serif:** a letter **without SERIFS.**

Shoulder: the blank space above and below the face of a letter on a type.

Shoulder Notes: marginal notes at top corner of page or "par."

Side Notes: marginal notes.

Solid Matter: is type set up without leads, distinguished from leaded matter. The text of page 26 is thin leaded (1st third) as is the text throughou this book; thick leaded (2nd third); and solid (3rd third).

Stick: small hand metal frame in which compositor sets type.

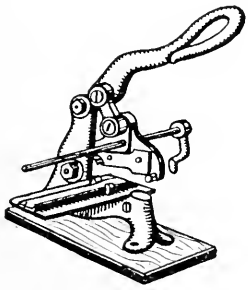
Swash Letters: the flourished italics of old face letters, such as Caslon and earlier founts: *N T M*

Turned Sorts: letters placed deliberately face downwards so that the black "foot" prints, to indicate where letters of the proper fount, for the present run short, will be needed.

Upper-case: capital letters stored in the upper case of the compositor's rack.

MACHINE COMPOSITION

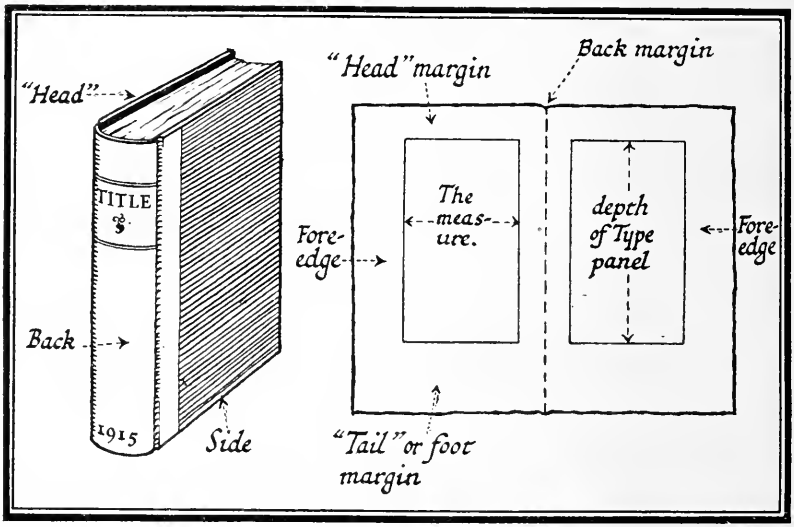
The question of machine composition need not be considered. There are certain jobs, elaborate "display" settings and the like, which are beyond the range of linotype or monotype, certain beautiful faces of type, such as the Caslon O.F. and the Plantin (the original, not the American versions) which are not available on these machines. For the rest it would not be tactful to enter into the controversies between the type founders and the type-machine makers. For practical commercial purposes the results are the same, and it is for the printer himself to choose his methods of getting at those results.



Brass rule and Lead Cutter.

ARRANGEMENT OF THE PRINTED PAGE

In planning a book consider the double page opening as the unit, not the single. The designer's problem is to place two black panels on a white ground in such a way as to ensure the best decorative effect. This diagram gives a summary of the best practice in this matter.



Fore-edge margins each equal to the two back margins taken together.

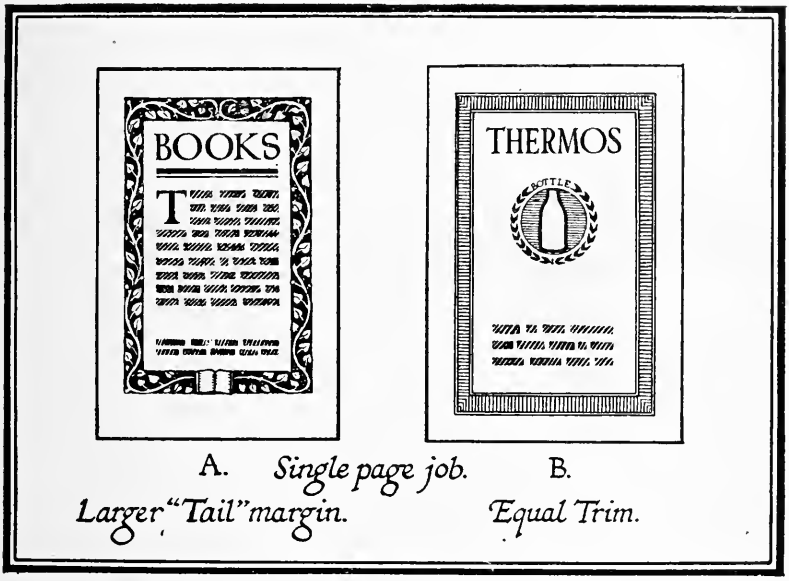
Fore-edge margins each greater than the head, less than the tail. The worst fault of all is to make the tail margins as small as or smaller than the head, as the type panels then seem to be falling out of the page.

Skimped margins make mean, exaggerated margins an affected page. The diagram shows a sane proportion.

In treating a title page (always a right hand page) which is not facing a left hand page, the writer (against some authorities, and against the rule-of-thumb practice of the case room) defends the practice of making the side margins equal, the head smaller, the tail larger.

The same arrangement applies even more obviously to book and booklet covers.

Though the traditional scheme of margins should not be departed from in book or booklet work, a legitimate effect can be obtained by treating the margin as a border.



MAKING UP THE BOOK

When the corrected proofs are received by the printer the type matter is made up into page form, after which rough page-proofs will be submitted with the illustrations all in place.

The general plan of arrangement will have been indicated to the compositor on his instruction sheet. If the book is of an elaborate or decorative nature, the design will have been worked out in the studio which is attached to the large modern printing-house. But it will be found by the man of business or his deputy a useful accomplishment to make up his own dummies from the galley-proofs and proofs of blocks which are sent to him.

The reason is that very often a paragraph rewritten, a passage inserted or removed will bring illustrations into connection with their text or do away with awkward blanks such as the ending of a page with a line of only one or two words. The first attempts may not be very brilliant, and it is not unnecessary to urge that advice should be taken from the printer, but it is work of which the fascination grows with the skill. And any tactful traveller, and certainly any head of a studio, will be glad to give assistance. One makes thus a co-operator out of a natural enemy! On the other hand, some folk have not got it in them to do this kind of work. They had best leave it alone.

The process of making up the book is no more mysterious than cutting your columns of proofs into parallelograms of the size of the type-area allowed for in your book and pasting them in your dummy.

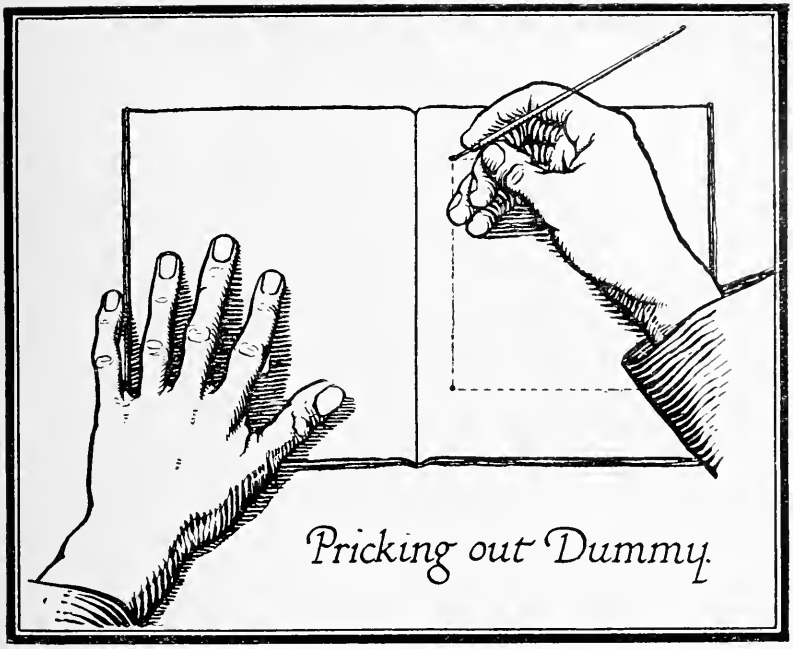
The apt and decorative arrangement of a printed page depends more than anything else on the position of these parallelograms or panels on the page. See the diagrams on page 65. They are worth study, and will enable a significant secret to be acquired at little cost of time and trouble. The positions will probably have been exactly indicated in the original dummy.

Making the Dummy

Having marked the position of the panels at your middle opening, prick them carefully through with a pin at the corners, so making a gauge on all the pages.

Perhaps the best method is, having roughly sketched the position of the type panels at a double opening (for it is easiest thus to place them correctly), to determine quite accurately the position of the right hand panel; then to prick the corners of this panel right through to the end of the book or section; then turning back this top right hand page to prick, through the holes, all the other pages to the front of the book.

Thin leaded
Thick leaded
Set solid



In suggesting position and size of a type panel in a lay out for the printer it is *better* to indicate it with *dotted* lines. Firm lines might be mistaken as a request for rule border.

If there are illustrations and they go right across the page the allowing for them is simple (don't crowd them, let them have plenty of space above and below). If they only go partly across the page then a little calculation (and practice) is necessary.

Suppose an illustration on the page which doesn't extend to the full measure. It leaves a parallelogram of the full depth of the illustration and as wide as the difference between the width of the illustration and the measure. Mark out this parallelogram roughly on your galley proof and count the words that fall in it (reckoning at discretion parts of words, if large, as words, ignoring them if small). This number of words gives you the amount that you are to cut from your galley to fill the space left alongside the illustration.

Note, however, that as in the narrower measure more space will relatively be occupied with "spaces" (more words needing to be divided, etc.), just a word or two less will be wanted than your calculation has determined. One must emphasize, however, the need of absolute accuracy. It is often wise to give an alternative phrase a little longer (or shorter) than a given selected phrase to allow the printer a margin for adjustment if necessary.

It is obvious that a dummy so made up greatly helps the compositor, saving time, explanations, and mistakes.

Sense before symmetry

The compositor, moreover, the keener he is on his work, is apt, say, with regard to illustrations, to sacrifice convenience of reference to neatness of arrangement. There is always necessity for compromise in this matter, but the customer is obviously in the position of authorizing or arranging such compromises as are necessary rather than the printer.

The gist of this section, as of many others in this book, is that there is no reason why any man of intelligence should not thoroughly master such traditions of the craft as deal with the arrangement and appearance of the printed matter with an elementary but not necessarily superficial knowledge of the actual manufacturing process.

Proof Reading and Author's Corrections

A proof of matter set up is taken to the *reader* in a Printing Office, whose business is to see that it is set exactly as copy. It is corrected by him and another proof taken which is sent to customer, which is known as "first proof." "First proof" is always a galley proof (or slip proof) as noted above. Author may require "second" or "revise" proof.

Charges are of course made by the Printing Office

for additions and corrections made by the author, not for proof reader's corrections of compositor's mistakes.

The work involved in making corrections is greater as the job nears its final stages, and it is extremely important that customers should realize the labour involved, as much soreness is often caused by apparently high charges for what seems to the amateur a trifling matter. A correction while work is on the machine will hold up a number of skilled workmen and expensive plant: while delicate operations and adjustments for register, etc., will have to be repeated. Every buyer of printing ought for this and other good reasons at least once in his life to see a first-class printing office in operation.

Page Proofs

Before the job goes to press it is often convenient to send page proofs. It is essential that at least one section which may serve as a model for the rest of the book should be arranged *and trimmed* actually as the finished work will appear. The "impression," however, may not be good, it will indeed be "grey" and uneven, as there is plenty of work yet to be done before it actually comes to printing.

Contriving Corrections

Changes in proof should always be made so as to cause as little dislocation as possible. A single word, for instance, taken out or added to a line may necessitate the resetting of several lines. With a little contrivance the author (one talks here rather of business "literature" than of the other more exalted kind) may put in a word to take the place of the excised word, or substitute a longer equivalent for another word, or make a new paragraph (par), or run two "pars" into one. Especial care should be taken to prevent a change in one page affecting the next. MS. copy should clearly be as final as possible to save needless expense.

TO CORRECT PROOFS
"WITHOUT TEARS"

To know how to correct proofs properly is to save a good deal of your own and the printer's time.

The usual page of proof-readers' marks offered in manuals is too forbidding to tempt the average man to master what is essentially an extremely simple thing. The marks are here divided into five logical groups, and the whole process can be mastered by reading each through carefully once.

A. Additions; Insertions; Substitutions; Cancelled Corrections

To take out altogether: Cross out in text, write ⁄ in margin. (being d, abbreviation of Latin "dele" or English "delete": with down stroke.) The down stroke is used after a correction to separate it from any other correction on the same line.

Corrections, of course, are written in the order in which they come in the text. See, for instance, line 3 in the selected passage below.

To insert: Put ^ in text, write desired insertion in the margin, with down stroke after it.

To take out and substitute: Cross out in text, write desired correction in margin, with down stroke.

To leave as before, cancelling a mistaken alteration: Make a dotted line under what is mistakenly crossed out in text, write "*stet*" in the margin.

m/ ⁄ I used ~~once~~ to look in blank despair ⁄ ⁄ ⁄
at the page cramed with all the possible
correction-marks used by proffessional
proof-readers. They are not all essen-
to the amateur tial and they can be more easily learnt stet
in groups. Surely this is a saner way.

30

This group consists of deletions & insertions only ☺

The corrected passage will therefore run thus:

> I used to look in blank despair at the page crammed with all the possible correction marks used by professional proof-readers. They are not all essential to the amateur and they can be more easily learnt in groups. This group consists of deletions and insertions only. Surely this is a saner way.

NOTE. Corrections should be made directly opposite the line in which they occur. Considerable additions can be written in any convenient space on the proof, ringed round, and a line drawn from the ring to the place of insertion with an arrow point; which commonsense device can be adopted where there is any danger of mistake, e.g. in a crowded or "dirty" proof.

B. CORRECTIONS CONCERNING FORMS OF LETTERS

To change Roman into italic: Underline desired word, write "*ital.*" in margin.

To change italic into Roman: Underline the italic, write "*Rom.*" in margin.

To change lower case to capitals or small caps: Underline letter or word with three lines or two lines respectively, write "*caps*" or "*small caps*" in margin.

To change capitals to lower case: Cross out, write "*l.c.*" in margin.

To underline a word: Underline in text and write "*underline*" in margin.

Rom cap l.c

I gazed in despair at the muddled page of the printers' correction-marks. Some were unessential and the whole Task extremely vexatious.

Ital. s. caps underline

Corrected Version.

I gazed in *despair* at the muddled page of the Printers' CORRECTION-MARKS. Some were unessential and the whole task extremely vexatious.

C. Punctuation Corrections

To insert parenthesis dash, or *interruption dash:* Put in text and in margin. So also

To insert or *substitute comma, semi-colon, colon,* or *full-stop:* Put , or cross out, in text; and write and with down stroke, or or in margin.

To insert apostrophe: Put in text and in margin.

To insert inverted commas: Put in text and in margin.

In the example below the ring and arrow have been used for inserting the semi-colon to avoid confusion. Similarly, use ring and arrow for note of exclamation, query mark, brackets, and any other emergency.

I used to look in despair and no wonder at the long muddled page of the symbols of professional proof-readers correction-marks.

They're not all essential and they can be more easily learnt in groups surely a saner method of learning.

Corrected Version.

I used to look in despair—and no wonder—at the long, muddled page of the symbols of professional proof-readers' correction-marks.

They're not all essential and they can be more easily learnt "in groups"; surely a saner method of learning.

D. Adjustment of Spaces

To indent a line (as at the beginning of a paragraph): Put in text and in margin. So also

To reduce space between words: Put between words and *less* in margin.

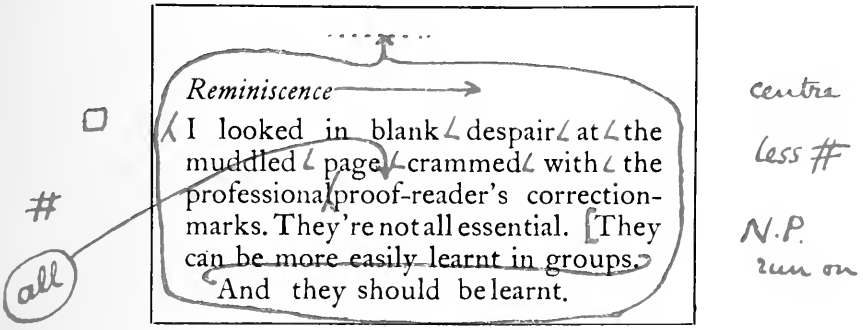
To insert a space: Put ⅄ in text and # in margin.

To indicate a new paragraph: Put ⌈ at beginning of desired paragraph, and "*N.P.*" in margin.

To run two paragraphs into one: Mark with a connecting line in text, and write "run on" in margin.

To centre a word or words: Make some appropriate mark (e.g. ⟶) in text, and write "centre" in margin.

To lift or to lower, or in fact generally to change position of type matter: Ring round the matter and connect it with an arrow drawn to the point or line desired and indicated.


Reminiscence
I looked in blank despair at the muddled page crammed with the professional proof-reader's correction-marks. They're not all essential. They can be more easily learnt in groups. And they should be learnt.
all
centre
less #
N.P.
run on

Corrected Version.

Reminiscence.

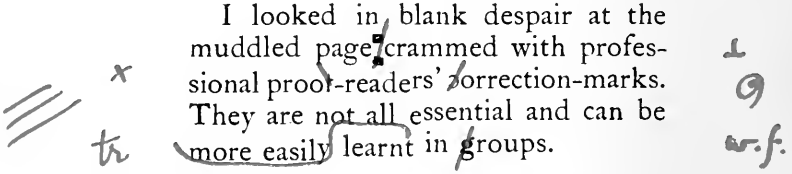
I looked in blank despair at the muddled page all crammed with the professional proof-reader's correction-marks. They're not all essential.

They can be more easily learnt in groups. And they should be learnt.

E. Miscellaneous Correction Marks.

To transpose words out of order (e.g. "more easily learnt" in the last line of the next example): Make a mark as there shown and write "*tr.*" in the margin. If the transposition is complicated *number the words* in their proper order and write "*tr.*" in the margin.

Spaces which have worked up too high (as between "page" and "crammed"); *battered* or broken *letters* (as the "f" in "proof-readers"); *turned letters* (as the first "c" in "correction"); *wrong fount* letters (as the "g" in "groups"); and uneven work such as is apparent in the last three lines, can very well be indicated by any sort of mark in the text, and // or ξ meaning "something the matter here," in the margin. The printer's marks actually in use are given in the example.


I looked in blank despair at the
muddled page crammed with profes-
sional proof-readers' correction-marks.
They are not all essential and can be
more easily learnt in groups.

Corrected Version.

I looked in blank despair at the muddled page crammed with professional proof-readers' correction-marks. They are not all essential and can be learnt more easily in groups.

It is obvious, that the signs used in correction of proofs, e.g., underlinings, additions, excisions, can be used on the original "copy" for the instruction to the printer.

IN THE MACHINE ROOM

When the customer has passed his proofs he has nothing more to do with the work directly till it is delivered to him. There are, however, points about the job at machine which, apart from their general interest, have a bearing upon his attitude to printer and print.

Theoretically all type and blocks are exactly the same height—"type-high"; every cylinder and platen mathematically true. Conditions of such absolute perfection, of course, do not exist in practice. If an ordinary forme, made up of newly cast type and very carefully made plates or blocks, were put on to machine and a copy pulled off, it would be found that some parts printed too light or "grey," others, as for instance the more delicate parts of a picture, too dark. The whole has to be pulled together by the skill and judgement of the machine minder and his assistant in the matter of "make-ready," a self-explanatory term, of which the chief features are the "overlay" and "underlay."

Overlay

In the platen press the paper is laid on the platen and brought to the forme; on the cylinder press it is gripped, stretched round a cylinder and rolled over the forme. Under the paper in each case is "packing" of lesser or greater thickness according to circumstances. Suppose the "packing" to consist of half a dozen sheets of paper. If one of those sheets be removed the pressure applied will be appreciably less and the impression lighter. Similarly if the eyebrow of a portrait comes out a little too strong and a piece of paper is cut from a sheet of the packing just under where the impression of the eyebrow falls, that impression will be lighter, or on the other hand the pressure may be increased at any point by pasting on to the packing. Overlay then is the

manipulation of the packing over the printing surface, that is between the paper and the platen or cylinder.

Underlay

is the treatment of the type or blocks by adding thickness under the type or blocks, or in the case of metal plates mounted on wood between the metal and the mount. A skilful pressman will as a *tour de force* print a recognizable, detailed landscape from a piece of flat burnished copper by mere manipulations with tissue paper between copper and wood mounting. Nothing about printing is much more surprising than the sensitiveness of printing surfaces and the accuracy and skill of first-rate machine men.

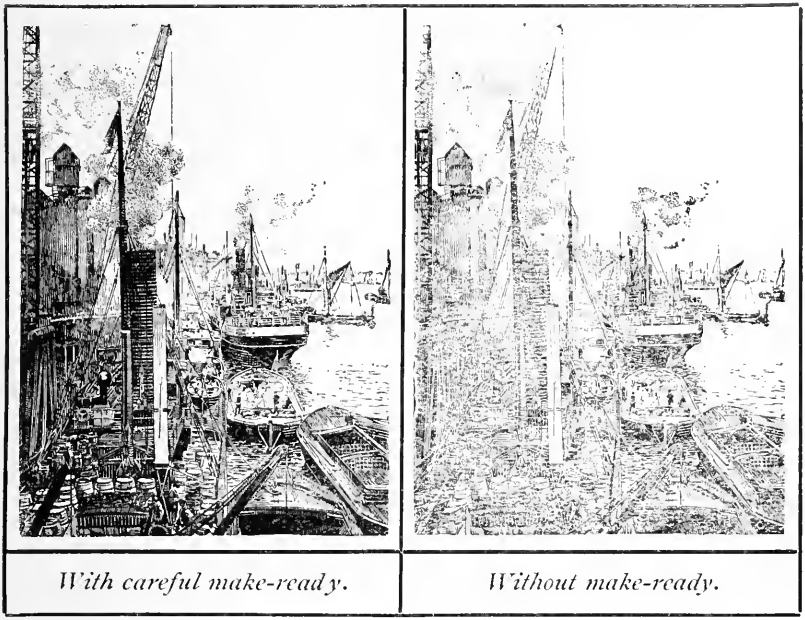
Printing and Printing

The significance of this from the buyers' point of view is that a good deal of this work can be scamped if the standards of the printer are not high (a fact to be remembered when comparing estimates) or spoilt by the hurry and rush so often unreasonably demanded by the customer. Again it is clear that perfection of plant, new type, machines in good condition, good plates, and of course skilled teams of men, shorten this work.

[Mem. Don't expect good work from worn blocks which you happen to "have by you" and think will "do." Design suffers as well as printing.] See opposite for blocks before and after make-ready. "Make-ready" includes those final infinitesimal adjustments of the forme at the machine. Try to imagine the delicacy of the adjustment involved in the printing of, say, four-colour work. Say a 200-line-to-the-inch screen has been used. That is 40,000 dots to the square inch. Each sheet of paper has to be passed through the machine four times in dead register, otherwise there is

distortion of colour or features. And that is not taking into account difficulties of temperature, swelling wood, stretching paper, other paper and ink troubles, and the malevolent spirit that hovers over all machines.

Readers may from electros study the difference between these two impressions of a fine line block; the one to the left on which care has been expended in making ready, and that on the right which is just levelled in the forme without overlay or underlay.



With careful make-ready. | *Without make-ready.*

The difference will be best seen in the stippled smoke, where the dots of the stipple are as close together as in a coarse-screened half-tone plate.

A page of type carelessly made ready shows distracting grey patches and abrupt streaks of extra dark tone. Make ready is, of course, work that can be scamped by the unscrupulous with perhaps no very great risk of detection by the inexperienced.

MACHINE-ROOM TERMS

Bed: the flat part of the press upon which the forme is placed.

Chase: an iron frame in which type and blocks are locked for press. See page 20.

Cylinder Press: a press with a flat-bed for the *forme* and a cylinder which revolves and impresses the paper on the type.

Flat pull or ROUGH PULL: the proof taken without *under-* or *over-lay*.

Forme: type, blocks, etc., locked in the *chase* ready for press.

Furniture: material (wood or metal) for making margins or large spaces in the *forme*.

Galley proof (or slip proof): rough proof taken from type on the galley before paging.

Hand Press: the primitive form of printing press still used for proving and for the finest work of the private presses (Kelmscott, Doves, Ashendene).

Machine-proof: proof of matter of which the formes are on machine. An expensive proof, because machines, nicely adjusted, are kept waiting out of action.

Making-Ready: the important, immediate preparation for printing by *overlay* and *underlay*, and the exact adjustment of gauges, etc., on machine.

Off-set: (1) the unintended transfer of ink or colour to another sheet of paper; (2) a process of printing by the transference of the impression from type or plate to paper or other material via a rubber or resilient cylinder.

Overlay: is the sheet on the impression cylinder which is thickened or thinned by adding or cutting away or paring down according to need of the subject after the work has been levelled as far as possible by underlay.

Perfecting: a perfecting machine has two impression cylinders and prints both sides of sheet at one operation.

Platen Press: press in which both paper and forme are flat.

Quoins: wedges of wood or metal to tighten up formes.

Register: (1) to impose type pages so that they back exactly; (2) to arrange for colour printing so that the colours fall into place with perfect accuracy; (3) (at machine) to adjust the forme, guides, gauges, etc.

Relief Printing: printing from raised surface, type or blocks; distinguished from *intaglio*, and from *lithographic* or planographic (flat surface) printing.

Rotary Press: printing press in which both printing surface (cast cylindrical plates) and paper (fed from a roll) revolve.

ILLUSTRATIONS AND BLOCKS

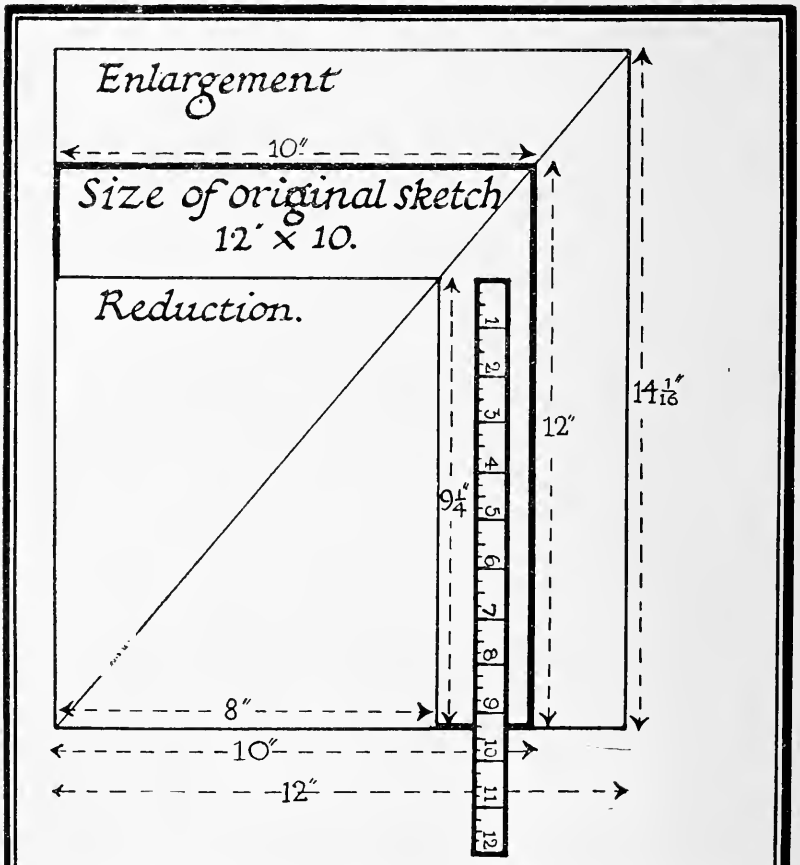
Notes on the Engraving Processes appear in a later section.

It is important to know how to mark a drawing for reduction so as to avoid all chance of misconstruction. This diagram explains the matter sufficiently.

Correct method of measuring vignetted portrait for reduction.

In marking a vignetted drawing the arrow should extend to the extremest lines of the drawing; and care should be taken that if the space to be filled by the illustration is already determined that the block should not be too large for it. A squared picture presents no difficulty.

This marking is best done on a tissue or tracing paper which is pasted over the original—the name and address of the owner should be on the back of every drawing.



Method of ascertaining the measurement of the unknown side of a reduced (or enlarged) block. *Scale ¼″ = 1″.*

It is often also found necessary to determine the exact size of a block when reduced. In the diagram opposite assume that the original sketch is 12 inches by 10 inches. If it is reduced to 8 inches in width (and one dimension, generally width, is of course always known) how deep will it be? On the tissue which covers the drawing draw a line from corner to corner of the drawing if it have a squared frame. If it be irregular in shape, make an enclosing parallelogram on the tissue and draw the diagonal. Mark off on base line 8 inches. Draw a line parallel to the side of the drawing to cut the diagonal. Measure this line, which in this instance will be found to be $9\frac{1}{4}$ inches.

A similar method will serve for calculating the rare case of an enlargement. In no case should the drawing be marked, not even with a "very faint line." The habit of marking line drawings with blue pencil should be discouraged. Instructions for the addition of mechanical tints and stipples, or for extra colour blocks should always be indicated on the tissue.

In ordering half-tone blocks state how they are to be finished, that is, squared up with an enclosing line; with the background cut away; with the background vignetted; or with background engraved.

Originals of blocks should not generally be used, but electrotypes made from them and the blocks preserved for the making of further electrotypes if necessary. This, of course, does not apply to short runs on small jobs.

A table showing the amount of wear that blocks will stand will be found among the tables towards the end of the book.

A GLOSSARY OF ENGRAVING TERMS

Block (or Cut): general term covering line blocks, half-tone blocks, woodcuts, electrotypes and stereotypes.

Burnish: in half-tone engraving used of process of flattening the tops of the dot cones and so producing a darker tone.

Collotype: a quasi-intaglio photo-mechanical non-screen half-tone process, depending, however, also partly on the lithographic principle. The main factor is the action of light on bichromatized gelatine. Where the light has acted on the plate the gelatine hardens; the non-hardened parts retain and absorb water. When the plate is inked, only the hardened parts take the ink; the soft or watery parts repel it. Reticulations of the film, finer or coarser according as the action of the light is less or greater, provide the "tooth" and ensure the reproduction of the half-tones without the use of a screen.

Copper-plate: an intaglio process of engraving by cutting or biting into copper; inking and wiping the plate; and printing with considerable pressure: includes mezzotint, etching, aquatint.

Die-stamping: an *intaglio* process of printing raised letters either coloured or blind (no colour) as in die stamped stationery. See *Embossing*.

Electrotype ("Electro"): a fine replica of type, plates, etc., formed by covering wax impression with galvanic coating of copper backed with metal, distinguished from *stereotype*, which is a mere mechanical casting in metal, not capable of such absolute exactness.

Embossing: the raising of letters already printed on card or paper by an uninked block. Distinguished from die stamping (where the die may carry ink), which is a more exact and expensive process.

Etching (root, *eat*): (1) an *intaglio* process of engraving on copper or zinc, the design being cut or scratched through a protecting smoked and varnished layer, and then bitten in with acid. (2) In photo-mechanical processes the general term referring to the action of the corroding acids.

Half tone: monochrome or colour plates photo-mechanically engraved with the aid of a ruled screen, giving tone values, not mere black-and-white contrasts. (cf. *line-block.*)

Intaglio: engraving or printing processes where the ink is laid in cuts or scratches and hollows on the plate, as in copperplate, etching, steel engraving, photogravure, mezzotint. Opposed to relief-printing, in which the

printing surface is raised. The plate is then wiped and the print is pulled under great pressure which forces the paper into the lines and hollows of the plate. You get not merely different tones of ink but actually different depths. The plate carries and actually transfers more ink than in any relief or flat surface process.

Line Block: a photo mechanical process which transfers a (generally reduced) copy of a line (not tone or "wash" drawings) to a prepared zinc or, for better work, copper plate, acid biting away the blank parts.

Lithograph: a process of surface printing (distinguished from relief and *intaglio*) which depends on the mutual repulsion of grease and water. An absorbent stone or porous —surfaced zinc or aluminium plate on to which a design is transferred in reverse, in greasy ink; is carefully washed with water; is then inked, the watered or blank parts repelling the ink, only the design (the greasy parts) taking it up. A copy is then printed, and the watering and inking processes repeated.

Mezzotint: a process of *intaglio* engraving on a roughened copper plate, scraped and burnished.

Photogravure: a photographic *intaglio* process of engraving on a plate on which a grain of bitumen dust is bitten in to the plate so as to form a "tooth" to hold the ink. The plate is then covered with a carbon negative and this is etched through and into the grain with acid. The plates is often carefully worked upon by hand. Machine photogravure (or roto gravure) uses a mechanical screen to act as a "railway" to the wiping knife in place of the roughened surface and prints from copper cylinders or flat copper plates.

Routing (pronounced "rowt"): Removing superfluous metal from engraved plates.

Screen: the ruled glass screen used in photo mechanical, half-tone engraving processes. Its close or open ruling determines the fineness or coarseness of the plate.

Steel Engraving: an intaglio process of engraving on steel, identical with *copperplate* in printing method.

Stereotype: a replica cast in metal from type and plates. Cast also in semi-cylindrical form for *rotary* machines. Moulds made of plaster, clay, papier-maché (*flong*).

Stipple: shading by dots instead of lines.

GLOSSARY OF PAPER TERMS

Notes on paper appear later in this volume. Meanwhile it will be convenient to insert here the sectional glossary of terms commonly used.

Antique: applied to rough surfaced paper, generally of the cheaper kinds.

Bank Paper: a thin, tough, writing paper.

Boards: applied to heavy kinds of cardboard. A book with stiff sides covered with paper is said to be bound in paper boards.

Broadside: a sheet printed one side only.

Calender: to give paper a smooth surface by rolling it. (Cf. Cylinder.)

Coated Paper: paper with clay surface, commonly (and foolishly) called "art" paper, for printing fine half-tone blocks.

Dandy Roll: in machine-made paper a roll or cylinder of wire gauze which impresses the water mark.

Deckle-edges: uneven edges of *hand-made* and *mould-made* paper. Faked deckle-edges are manipulated on poorer paper made in the roll. A bad practice.

Duodecimo ("Twelvemo"): a sheet of book paper folded to make 12 leaves (24 pages) gives a 12mo.

Folio: (1) The sheet folded once gives 4 folio pages or two leaves.
(2) A page number (e.g. the 44 on this page).

Forel (or forrel): a coarser parchment showing attractive grain and discolorations. Used for binding.

Flong: a kind of papier maché (plastic and fire resisting) for making the moulds for *stereotypes*.

Laid Paper: paper which shows faint parallel markings from the pressure of the wires of the tray or roller used in manufacture. Opposed to wove, e.g. cream-laid, cream-woven.

Mould-made Paper: fine paper, made not actually by hand, but by a machine process akin, working the pulp in a tray piece by piece not in the roll. Raw material (rags) and general quality may be as good as hand-made. The finished product is not so tough.

Octavo: sheet of paper folded in eight leaves (16 pages) gives 8vo size.

Parchment: a prepared sheepskin.

Quarto: a sheet of paper folded to make four leaves (8 pages) gives quarto.

Quire: (1) of writing paper, twenty-four sheets; of newspapers, twenty-six copies.
(2) Section of a *ream* of paper; 24 sheets.

"In Quires": used of a book unbound in sheets.

Ream: standard parcel of paper, 480 sheets normal; 516 "perfect"; newspaper, 500.

Roman Vellum: a fine quality of sheep-or lamb-skin.

Sixteenmo: a sheet folded to make sixteen leaves (32 pages) is 16mo.

Super-calendered Paper: paper highly glazed by rolling between cylinders (calenders).

Twelvemo: paper folded into twelve leaves (24 pages) gives 12mo.

Twenty-fourmo: a sheet folded to make twenty-four leaves (48 pp.).

Vellum: originally prepared calf skin. Applied to good prepared skin.

Wove Papers: paper which shows no wire marks. See *Laid.*

THE BINDERY

From the machine the work goes to the bindery, lucky if it be allowed by the impatient customer time to dry properly. And of course most jobbing work is of a fugitive nature and is only put together by hasty processes which the authentic bookbinder would view with disdain. See Chapter XI: "On Book-binding."

Two points. 1° Discourage the habit of extravagantly overlapping paper covers in ornamental booklets. It is meant to look pretty, but is unserviceable, as the edges of the work get damaged in transit, and the beauty of work is to be judged not at the moment it leaves the printer but when it reaches the reader. An overlap of $\frac{1}{8}$ in. at most is sufficient, better still $\frac{1}{16}$ in., and if the cover paper is thin "trim flush" for choice.

Murdered Margins

2° Let it be clearly understood by your printer that you have views with regard to margins (see p. 65), that you do care whereabouts the type matter is placed on the page, that even though the book is actually delivered to you the exact size as arranged it makes all the difference to you that whereas you wished a half-inch

head and a $\frac{5}{8}$ in. tail margin, these measurements have been reversed. There are amiable ruffians in printing factories presiding over what is appropriately termed the guillotine. Keep an eye on them. They need it.

It is fair to add that in the case of rushed work this official (the guillotine man) cannot conveniently clamp down the printed matter tightly without risking "off-set" of the still wet ink. You must expect some eccentric results in the matter of trim if you won't have patience, as the knife is apt to "drag" and the books to be cut out of square. Blunt knives and worn cutting sticks may also be responsible. But that's the printer's trouble.

GLOSSARY OF BINDING TERMS

Bleed: used of trimming that cuts into the printed matter.

Blind Tooling: lettering or ornament impressed on book covers without gilding or colouring.

Buckram: a book cover cloth of linen with pleasantly coarse texture; very serviceable.

Case: a cover made apart from the book.

Case Binding: a hasty and usual method of binding books by the glueing on of a case separately made.

French Joints: in a French joint the board is placed a little away from the joint of the book, forming a trough between the back of the board and the edge of the back of the book.

Guards: strips of thin paper or linen, attached to the backs of plates or sections. Any material used for strengthening a weak fold, or for bulking out the backs of books, such as scrap books.

Half Binding: a book with leather back and corners, with a normal amount of leather showing on the side, about an inch wide on a "crown 8vo" book and stiff sides covered with cloth or paper, e.g. half-morocco, half-calf.

Over-Casting: sewing over the back of sections.

Score: to crease heavy paper or light board to make it fold readily.

Slips: the ends of the cord, or tapes on which a book is sewn.

Split boards: originally boards split to receive the slips, now generally two boards glued

together with the slips between them.

Stabbing: a method of wire or thread stitching through the side of single leaves that cannot easily be sewn. A desperate method, as the book won't open flat.

Three-quarter Binding: similar to half-binding, but with more leather showing.

Quarter-binding is half-binding with very narrow leather on the side, and either no leather corners or very small ones.

PACKING ROOMS

Work, naturally, should be so packed as not to be damaged in transit. It is not unknown for warehousemen to tie up matter so as to cut into the edges of, say, a booklet, and so ruin quite a few copies in every parcel. Faults of work packed too soon are usually to be attributed to the impatient customer.

In Conclusion

In conclusion, we may sum up that it is eminently worth while for a user and buyer of printing to master so much of the matter as refers to design and arrangement. To cultivate and exercise his own taste in this direction. To equip himself with the knowledge of the best printing practice (best not because fashionable, but because sanest), and to insist on his printer working to that standard. Such a customer may even be at first something of a nuisance, but in the end his knowledge and standards will be respected, he will be respected himself, and the printer, who like anybody else works better if appreciated, will put more intelligence and "back" into his work.

One thing may be demanded of the knowledgeable customer. Understanding something of the extraordinary complexity and difficulty of the processes of the manufacture of print, and realizing the possibilities at every stage of mistake—the rareness of actual mistakes is an astonishing phenomenon in itself—he will

make due allowance when the rare but eventually inevitable mistake does make its appearance. On the other hand it is, of course, the printer's business not to make mistakes.

The Complexity of it

As to complexity: take this actual straightforward page; to the making of it has gone this amount of work:

there are so many pieces of metal (types, quads, spaces, leads, etc.) which have been taken from the cases;
transferred from stick to galley;
corrected;
tied into page form;
lifted to stone, risking "pie," *i.e.*, collapse of the whole thing at any moment;
locked in forme, involving careful "register" with the other pages;
lifting of forme to machine;
making ready;
printing, (and at machine serious accidents may happen to the forme from the picking out of a loose letter by the sticky rollers, and
its being ground into the forme, necessitating lifting out and repairing;
or its being unnoticed and the whole succeeding "run" having to be scrapped);
clean handling off the machine with work-soiled hands;
folding; assembling in correct order;
binding; trimming;

And this a simple one colour page without complications.

Certainly the mystery is that printing costs so little, not that it costs so much.

CHAPTER V

OF TYPE-SETTING AND TYPE

With a Note on Style

IN regard of type and type-setting, the first desideratum is legibility. Decoration is purely subsidiary, and decoration that jeopardizes legibility is just bad workmanship. This carries us not merely to the right choice of type but to right understanding of some principles concerning its arrangement.

There is, in fact, no "high art" nonsense about the suggestions here advanced; it merely amounts to this, that simplicity and dignity and a sense of style will suffice to get a message read more quickly, and attended to more pleasurably than fussy, crowded, over-ornamented work.

On no account let various faces of type be crowded into the same page or series of pages. It is happily no longer the printer's ideal to use as many faces as he can lay his hand to. Still, relics of the tradition survive.

Distinction v. *Notoriety*

Distinction is a quality which cannot be achieved by brute force, or by mere expensiveness. It is an effect of skill and reticence. Any man can achieve a certain notoriety by wearing a mauve silk hat, but will not thus achieve the reputation of being well dressed or reap the rewards of such distinction.

He will also achieve being "different." But "being different" despite hackneyed maxims to the contrary in advertising circles is by no means everything.

All measurements in relation to type in this book have been made in inches. The printer's unit of measure is the *em*, arbitrarily chosen as the em of Pica, or 12-point, and therefore $\frac{1}{6}''$ in length. It is not a difficult achievement to reckon in one-sixths of inches, but it is against our common habit, and perhaps it is rather the printer should change to inches than the amateur to ems. At any rate for all practical purposes of the amateur there is nothing to be gained by changing his inch rule for an em-divided scale.

The text of this book is printed from metal types all of even height (type-high) put together with appropriate spaces, line by line, and locked, together with the blocks, into a frame or chase. This type was cast from matrices or moulds made in first instance from punches of the letters cut in steel.

THE POINT SYSTEM

The old and venerable system of naming type, Brevier, Long Primer, Pica, etc., is giving place to the standardized "point system," whereby the various sizes are distinguished by their measurements. In this system the inch is divided into 72 parts, each part a point.

In the attached table the names are given with their corresponding point values.

A set of types is termed a fount of type. It includes CAPITALS, SMALL CAPITALS, lower case letters (indicated in copy by ≡ (underlined), = (underlined), and *l.c.* (in margin) respectively); accented letters, figures, punctuation marks and miscellaneous "sorts"; spaces (hair, thin, middling, thick, "en") used between words, and quadrats or quads (a thicker sort of space) between sentences at the beginning and end of paragraphs and to fill out lines.

An "em quad" is "the square of the body" of any fount of type; e.g., in 18-pt. type of which the body is

NAMES AND SIZES OF TYPES

6 pt.: or Nonpareil: body = $\frac{1}{12}$ inch.

12 pt.: or PICA: body = $\frac{1}{6}$ of inch.

8 pt.: or Brevier.

14 pt.: or English.

10 pt.: or Long Primer.

18 pt.: or Great Primer.

24 pt.: 2-line Pica: = $\frac{1}{3}$ inch body.

30 pt.: 5-line Nonpareil.

36 pt.: 3-l. Pica ($\frac{1}{2}$ inch body).

42 pt.: 7-l. Nonp.

48 pt.: 4-l. Pica.

60pt.:5-l.Pica

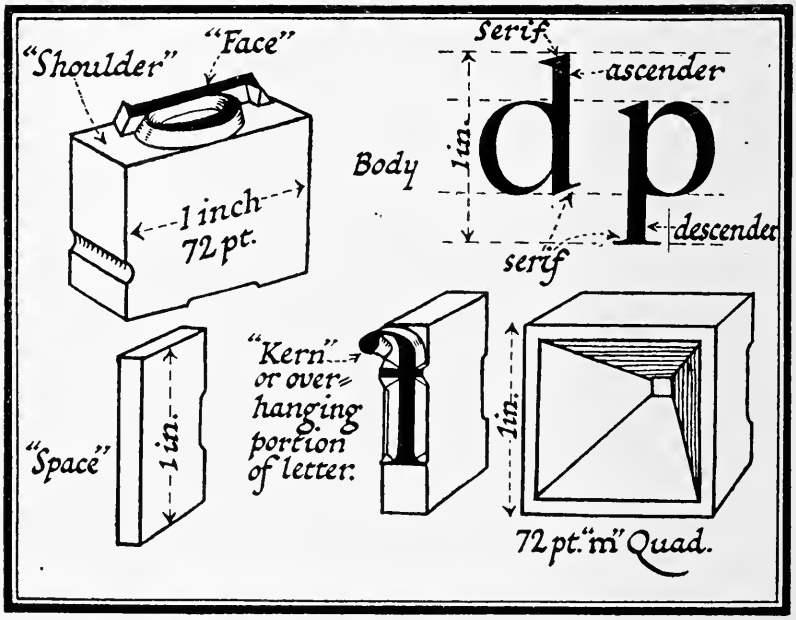
72pt.:6-l.P

(1 inch body).

$\frac{18}{72} = \frac{1}{4}$ inch, an em quad is a space $\frac{1}{4}$ inch square. It *roughly* represents the space occupied by the capital M of a given fount.

The following diagram explains the structure of a type letter and the parts of a letter so far as an amateur needs to know them.

A 72-point fount has been chosen for illustration and the drawings are to scale.



VARIOUS FOUNTS OF TYPE

The most essential thing about a type is that it should be completely legible. In the pursuit of something "different" the advertiser is apt to make the mistake of forgetting that legibility is the primary desideratum.

A letter is essentially a code for the rapid signalling of the sound it represents. Any notable departure from the accustomed form means a loss of legibility. That is why "artistic" types, letters with bulges, nicks, twid-

dles and dashes and squirms, as they loved to make them in the latter half of the Victorian era, may be condemned out of hand not merely as abominably ugly, and also as utterly inefficient for their job. It is worth noting that the Americans, obviously intense seekers after novelty, are very much more inclined than ourselves to choose sane types and to set them in sober and orderly fashion. The Germans, on the other hand, are behind us in this matter. Novelty and boldness of effect frequently carry them to the point of illegibility.

A Chamber of Horrors!

The full alphabet, upper and lower case, roman and italic, is given in order that the beautiful standardized forms can be well studied. They may be profitably contrasted with the "chamber of horrors" above, the unhappy exhibits in which were collected by the writer from current type founders' catalogues.

ALPHABETS ROMAN AND ITALIC

AND FIGURES OF THE CASLON LETTER

The examples of the various "jobbing" founts of type (as contrasted with the book founts of type) which follow, are given, as the lawyers say, "without prejudice"; that is to say the writer does not wish to be held to approve of all of them. They are inserted as characteristic and for convenience of reference, as representative rather than exhaustive.

The Caslon Old Face is, of course, also perhaps the most beautiful of book founts, but it has made itself indispensable in its larger sizes particularly for advertisement purposes. An encouraging sign of the times.

VARIOUS FOUNTS OF TYPE

This line is set in 12 pt. CASLON O.F.

This line is set in 12 pt. CASLON O.F. Italic.

This line is set in 12 pt. PLANTIN.

This line is set in 12 pt. PLANTIN Italic.

This line is set in 12 point DOLPHIN

This line is set in 12 point DECOY

This line is set in 12 pt. CHELTENHAM.

This line is set in 12 pt. CHELTENHAM Italic.

This line is set in 12 pt. CHELTENHAM Bold.

This line is set in 12 pt. CHELTENHAM BOLD ITALIC.

This line is set in 12 pt. CHELTENHAM Expanded.

This line is set in 12 pt. CHELTENHAM WIDE.

This line is set in 12 pt. CHELTENHAM Compressed.

This line is set in 12 pt. WREN (Light).

This line is set in 12 pt. WREN (Heavy).

This line is set in 12 pt. OLD ROMAN.

This line is set in 12 pt. OLD ROMAN ITALIC.

This line is set in 12 pt. HALLAMSHIRE.

This line is set in 12 pt. POST O.S.

This line is set in 12 pt. POST O.S. Italic.

This line is set in 12 pt. WESTMINSTER Old Style.

This line is set in 12 pt. VENETIAN.

This line is set in 12 pt. JENSON.

This line is set in 12 pt. Lin. ANTIQUE.

This line is set in 12 pt. IONIC Old Style.

This line is set in 12 pt. TUSCAN ITALIC.

This line is set in 12 pt. MORLAND.

This line is set in 12 pt. MORLAND ITALIC.

This line is set in 12 pt. GALLIC OLD STYLE.

This line is set in 12 pt. HUGO.

This line is set in 12 pt. WINDSOR.

This line is set in 12 pt. WINDSOR CONDENSED.

This line is set in 12 pt. ANTIQUE, No. 8.

This line is set in 12 pt. DORIC, No. 6.

This line is set in 12 pt. SANS-SERIF Condensed.

This line is set in 12 pt. TYPEWRITER.

This line is set in 12 pt. TYPEWRITER (Ribbon Face).

This line is set in 12 pt. Tudor Black.

This line is set in 12 pt. Carton Black.

It will be noted from the examples just displayed that the measure 12 pt. refers only to the depth of the body of the letter, including ascenders and descenders, not to the width. Compare for instance the Cheltenham Expanded with the Caslon Old Face. Measuring those words which are common to both lines, we find the former a good deal more than a third longer than the latter—a difference which would be normally increased because the number of lower case "i's" in the line minimises the divergence.

As to the terms Old Face, Old Style, and Modern: the general characteristic of Old Face and Old Style types is the slanting serif of the lower case letter and a generally less mechanical exactness—a greater freedom of drawing, as the artist would put it.

This line is set in Old Face Type

This line is set in Modern Type

* * *

COMPARISON OF LETTER FORMS.

The better to display the distinguishing characteristics of the various types, a longer passage is set in thirteen different letters.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

A B C D E F G H I J K L M N O P Q R S T U V

12-pt. Plantin Old Style.

There is nothing occult about the thought that all things may be made well or made ill A work of art is a well made thing that is all It may be a well made statue or a well made chair or a well made book Art is not a special sauce applied to ordinary cooking it is the cooking itself if it is good Most simply and generally art may be thought of as the well doing of what needs doing

ABCDEFGHIJKLMNOPQRSTUVWXYZ

12-pt. Decoy.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good. Most simply and generally art may be thought of as the well-doing of what needs doing.

ABCDEFGHIJKLMNOPQURSTUVWXYZÆŒ.

12-pt. Dolphin.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUV

12-pt. Cheltenham.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUVWX

12-pt. Cheltenham Wide

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUV

12-pt. Wren Light

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUVW

12-pt. Hallamshire

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUVW

12-pt. Westminster

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good.

ABCDEFGHIJKLMNOPQRSTUVW

12-pt. Venetian.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book.
ABCDEFGHIJKLMNOPQRSTUV

12-pt. Post Old Style.

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book.
ABCDEFGHIJKLMNOPQRSTU

12-pt. Morland

There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue, or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; It is the cooking itself if it is good.
ABCDEFGHIJKLMNOPQRSTU

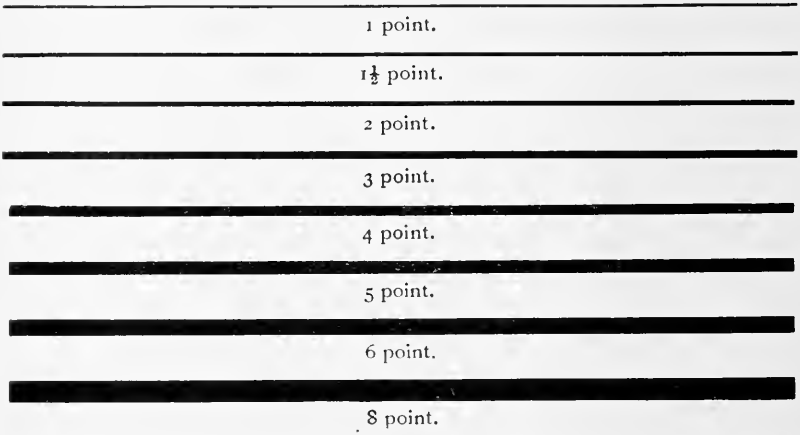
12-pt. Hugo

These examples may be studied with advantage. Taste will dictate their appropriate use, and while admitting *Hallamshire* for a booklet on corsets will eschew it for the text of a memorial card. The writer will not presume to dictate on the delicate subject further than to repeat that the nearer a letter attains to standard form the better is that letter. What sort of sense or beauty is there in the lower case k of *Morland* and *Post* (or, for that matter, the exaggerated backward spin of the lower case o in *Hugo*)?

OF THE SIZES OF RULES AND LEADS

A 3-pt black rule prints a line $\frac{3}{72}$ or $\frac{1}{24}$ in. in thickness. An em quad of a 12pt (Pica) fount makes a space $\frac{1}{6}$ in. square. And so forth.

It is convenient for the user of printing to make himself acquainted with the appearance of the different sizes of rules.



Rule borders are apt to gape at the joints, both at the corners and elsewhere. The point should be attended to carefully in proof reading.

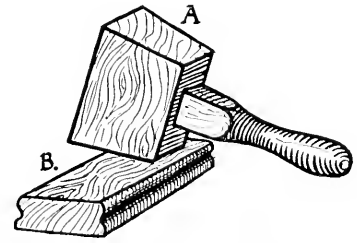
SIZES OF LEADS

It may be worth noting that while rules are type high strips of metal for printing purposes, leads are metal strips less than type high used for spacing purposes. The measurements are, of course, the same. Thin leading is taken to mean 1½ pt., thick leading 3 pt., unless special leading is ordered. A 2 pt. lead is sometimes called a middle lead. The examples of the various types just given were set solid. This book is thin leaded throughout.

It is becoming customary to specify leading, not as thin and thick but as one pt., two pt., three pt., etc. The modern method is more logical, the old is for practical purposes sufficient.

The ideal type is so arranged that it looks at its best without leading, but here, as always, there is room for individual discretion.

One can obviously calculate the extra space occupied by leaded matter over solid matter by counting up the leading in terms of points and dividing the result by 72. For example, 48 lines of type with thin leads ($1\frac{1}{2}$ point) will give a pointage of $48 \times \frac{3}{2} = 72$. That is there will be an inch extra space occupied by every 48 lines of solid matter if thin leaded, two inches if thick leaded.



Mallet (A) & Planer (B.)

[*The matter in the forme is levelled by the compositor with mallet and planer.*]

CHAPTER VI

SOME DETAILS OF STYLE IN SOUND PRINTING PRACTICE

THE general problem of the printer as designer may be stated as that of placing panels attractively in a frame. It is a matter of observation how much deft framing improves a picture. The printer's frame is his margins, and that is why the writer has insisted, he hopes not to the point of weariness, on the vital importance of right views about margins.

On page 24 the reader will find a scheme of margins for the printed book which may be looked upon as traditional—a summary of the best practice of the fine ages of printing.

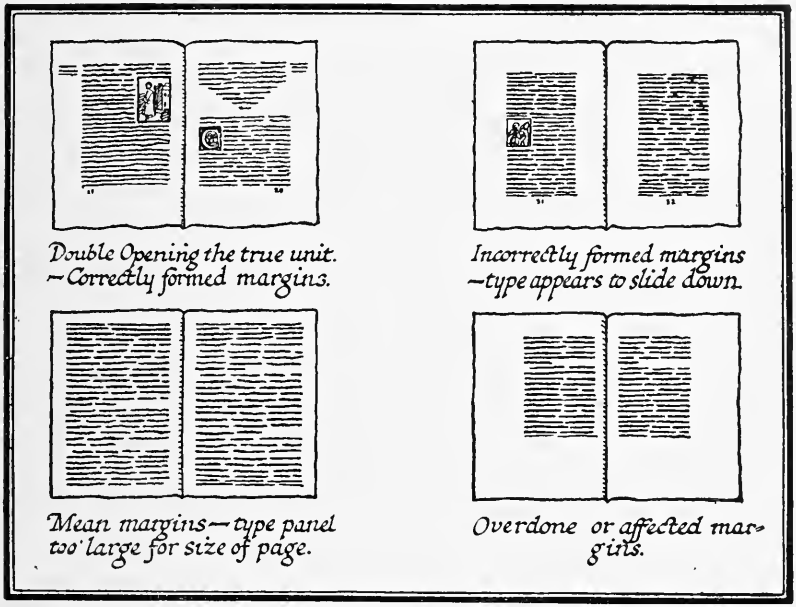
It is of course possible to maintain that all these artistic canons are a matter of conventions to which one is or is not accustomed; that if a generation of printers created a fashion of putting a wide margin at the top and a narrow at the bottom, the practice would be defended by some authority as the authentic practice.

It has been suggested that the deep margin at the foot of a book is merely a practical device for allowing the book to be held by the thumbs without covering any part of the matter. If that be so, there could not be a better artistic apology for the custom, as it cannot be too often repeated that practical utility is the final test to distinguish good decoration from bad.

There seems also, however, to be a reason founded in optics. If in a given parallelogram one places, say, a circle or any other symmetrical figure on the exact centre where the diagonals cross, that figure will unquestionably look as if it was placed a little below the centre. The writer is unaware of any sufficient explana-

tion of this fact; but fact it is, and seems an adequate practical defence of the marginal scheme here advocated. And this without any recourse to the excellent authority of the old manuscript illuminators, the early printers and the revivalists led by Morris.

The three following diagrams explain variants of the fundamental rule stated on p. 24. The diagram on this page shows right and wrong treatment of a book opening. It should always be remembered that the true unit in designing a book is the double opening; and this

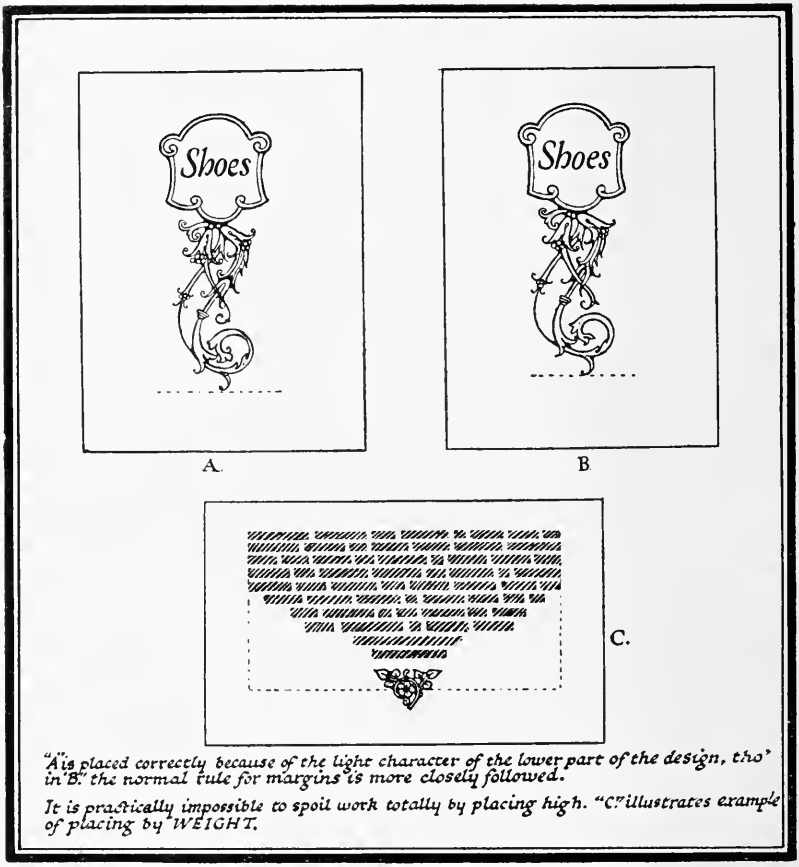


seems to be the best defence of the writer's contention that a title page, which is faced by a blank left-hand page, should have its side margins equal rather than exactly back its following page. There is a lack of symmetry about this theory which disturbs the practical printer, but the conclusion seems sound.

The next two diagrams deal with variants of the problem. A mass is to be treated as a mass according to its weight rather than according to its actual

measurements. For instance, in the example below fig. C, the irregular, more or less triangular, shape may be considered as the equivalent of the dotted right angle and the margins calculated on this basis rather than from the lowest point of the ornament at the foot.

Figs. A and B deal with a similar problem; and it may be registered as a definite conclusion that it is



"A" is placed correctly because of the light character of the lower part of the design, tho' in "B" the normal rule for margins is more closely followed.

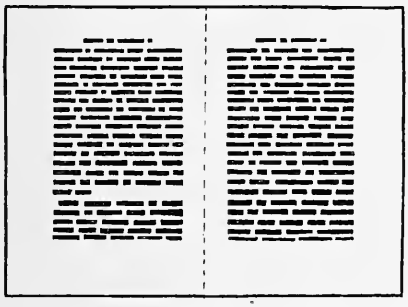
It is practically impossible to spoil work totally by placing high. "C" illustrates example of placing by WEIGHT.

much more difficult to spoil work by placing your mass too high upon the page than by placing it low.

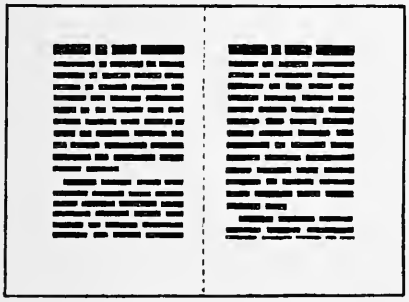
The same essential principle is exemplified in the diagram opposite, dealing with headlines. Reference to

p. 25 will show a quite attractive arrangement of margins in fig. B, where an equal margin all round makes a suitable frame. The principles guiding correct placing as enumerated above are exemplified in the treatment of the matter within the inner frame.

A word may be said on the question of numbered



A. *This example shows how a light headline may be ignored in calculating the proportions of the margins*



B. *In this case with heavy headlines stretching accross the page, the headline is itself considered a part of the panel.*

pages, or folioing, as the printer terms it. The chief desideratum about a page number is that it should be readily seen. It is obviously better seen at the outside top or bottom corners than in the middle, and it is ludicrous to place it at the inside bottom corners of the type panels.

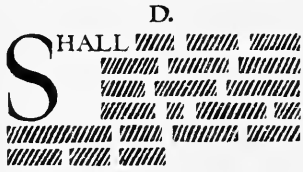
Initial letters, larger than the text letter, make one of the simplest and most effective embellishments of the printed page, especially when printed in a well-selected, contrasting colour. A number of impracticable

A.

B.

C.

D.



E.

F.

G.

H.

I.

J.

All the above initials show faults, either of design or in alignment.

In Example "A" the initial letter does not at once connect with the word to which it belongs. The initial in "B," while otherwise correct, does not align properly. "C" exhibits the same defects but more awkwardly. "D" aligns well, but shows a needless gap between the initial and the text. Example "E," owing to faulty design, does not clearly connect.

All the above Examples indicate correct placing of initials.

"F" fits compactly into its place. "G" aligns properly, & connects closely with the commencing word. The "beak" of the "W" in "H" projects beyond the perpendicular line because of the slant, making it look more right than if exactly perpendicular with type panel. "I" shows a correct form. "J", the initial, being circular, also projects.

or ugly variants of this excellent device are current. The examples A, B, C, D, E, from the diagram opposite, are taken from the writer's museum of monstrosities in this department. Perhaps the most interesting is B as exemplifying the mechanical origins of a bad practice which comes to have the sanction of custom.

At the left-hand corner of the top diagram illustrating the parts of a letter on p. 52 is shown the drawing of an actual 72 pt. lower case "d" drawn to scale. Below the face of the letter is a space termed the shoulder (which is joined by the bevel or beard of the letter sloping down from the face to the body) and this will be occupied in the case of a descending letter such as "p" by the descender. If, then, say for a text printed in 12 pt., a 48 pt. capital is used, its shoulder being correspondingly larger than a 12 pt. letter will prevent the line below the initial coming close up to the line that ranges with the foot of the initial, so leaving a gap without rhyme or reason from the decorative point of view. Titling letters are made by type founders which consist of capital letters without beard or shoulder, and these should be employed for initialling.

NOTE ON THE USE OF COLOUR.

It would be unprofitable to attempt any disquisition on the wide subject of the right use of colour. One may broadly assert that no one who lacks the colour sense will acquire it out of books; and on the other hand that a rudimentary sense of colour can be developed indefinitely by training, observation and experience. With that platitude one must leave the matter.

A word, however, may be said with profit on the use of the second colour in printing.

The most generally effective second colour according both to tradition and experience is red, which is the descendant of the rubrication used in the early printed

books, which again was the child of the rubrication of ecclesiastical work.

The chief fault with regard to the second colour is the over-doing of it. A good working rule is that when in the design of a page you have allotted the amount of red you think suitable, decrease it by one half and you will more likely be right; that is until training brings severity and accuracy of judgement.

The most villainous habit of all in this regard is the spotting of initial letters of red up and down the page, especially when, as sometimes happens, the initial letter is of the same size as the following letters. Red, clearly, is a less emphatic contrast to white than black is, and the effect of small rubricated letters is to degrade not emphasize them.

In a word, never spot your reds, mass them.

These points are illustrated in the two contrasted versions of a title page, on p. 71 and p. 72, on the title page at the beginning of this book and elsewhere where a second colour happens to be used.

In the two following examples of the bad and good title page perhaps the folly of the "spotting" school has been a little exaggerated, but not much. Possibly members of that school would jib at the black and red rule which seems to "jump"; I doubt it. They certainly would not (and do not, which is more to the point) refrain from all the other doleful pleasantries in this unhappy example.

Nobody who has taken delight in the well placed piece of pure (not muddy) strong (not vague and weak) colour will ever revert to this measly habit of spotting.

I venture again to state my experience for the guidance of the promising amateur—when you have fixed upon the amount of red to use—halve it.

THE BAD WAY

A List of some Really Preposterous Notions

By
FREDERICK FUSSE

Published by
SPOTT DOTT & CO
Red Riot Square
LONDON
W·C

THE APT WAY

A record of some seemly
ideals of the
Printer's
Craft

By
JOHN PLAIN

MXMIX
Published by
W. H. SMITH & SON
Stamford Street
LONDON
S·E·1

CHAPTER VII

A FEW NOTES ON ILLUSTRATION AND DESIGN

ILLUSTRATIONS in printing matter used for business may be merely explanatory, or mainly decorative embellishments to intrigue the reader and so draw him on to absorb the solid information. Or, as in the case of a poster, to hold his attention and create a definite impression in a flash.

Diagrams v. *Photographs.*

For explanatory pictures, line block drawings are frequently better and clearer than reproductions from photographs, and of course it will not escape attention that line work harmonizes better than half-tone work with the printed text of a book. Even diagrams need not be ugly. Both of which points are amply proved in this book. Nor do I suppose it will be denied that a book so treated is pleasanter to handle and in the end, *therefore*, probably more informative than a bald and "business-like" manual.

If photographs are used then the most skilful retouching is necessary—and has to be paid for. Note the difference made by skilful retouching on p. 113. A very little added to the cost has added much to the clearness of the illustration, but I doubt whether either is as clear or effective as the woodcut on p. 106 or diagram on p. 11.

In regard to drawings, the business value of clever work cannot be over-estimated. (See, for instance, examples on pp. 77, 90, 107.) I have frequently heard such a phrase as "Of course we cannot afford to give more than £2 2s. for a drawing"—and have often won-

dered why 9d. was not the price fixed upon, if the ludicrous absurdity of *fixing* any price is entertained at all.

The Cost Distributed

The difference between a good design and a poor design distributed over a large number of reproductions is practically negligible, while its fighting value, so to speak, counts in every one of the reproduced copies. Often indeed the extra cost may be met by a change in the process of reproduction, as, for example, using a two-colour instead of a three-colour block.

One is almost ashamed of emphasizing such a platitude, but it is astonishing how little people learn from their own waste-paper baskets.

Even uncultured people appreciate the difference between good and poor work, and no mistake is more common than the under-estimating of public taste. May not degradation of public taste be largely due to the false and paltry conventions of those who cater for it?

In the matter of "printing for business" or of illustrations for business, of course the man of business is not directly concerned with questions of taste but with those of profit. One therefore commends the work of the good craftsman as against the poor craftsman only on the ground that the attention compelling power of the former is greater. He's a better "pointer."

"That Blessed Word"

The word "artistic" has become by association a loathly one. Real suitability for the end in view is the proper test of art used for purposes of commerce, as for any other purpose.

Take the interesting case of posters. The flat simplified treatment of the poster is not to be commended because

it is a Nicholsonian (or German) eccentricity, but because the function of the poster is mainly to send its message from a distance to hurried folk, directness and simplicity in colouring, design and lettering are absolutely essential.

Of course it is a kind of treatment which reveals the genius or betrays the fool. Any sort of artist can make a muddled, detailed, shaded-up, fussy drawing, and any lithographer transfer it to the stone, if he sets no limit on the number of colours to be used. But an artist who knows his work can simplify his drawing and reduce the number of necessary printings, thereby saving for his patron something of what should be added to his fee; and, most important of all, get his message home in the quickest and most effective way.

One Convention as good as another

If it be urged, as it sometimes is, that simple people do not understand this kind of work, it should be remembered that to the uncultured, as indeed to the cultured, all art is an arbitrary convention, and uninstructed folk are quite as ready to accept one convention as another. But it is the timid patron interfering with the artist that is responsible for much bad work ; and I regret to have to say that the patron is not always the best judge. Ability to pay a bill does not confer all the talents.

These golden words, written in *The Imprint* by Professor Lethaby, deserve to be widely read and known :

> There is nothing occult about the thought that all things may be made well or made ill. A work of art is a well-made thing, that is all. It may be a well-made statue or a well-made chair, or a well-made book. Art is not a special sauce applied to ordinary cooking; it is the cooking itself if it is good. Most simply and generally art may be thought of as the well-doing of what needs doing. If the thing is not worth doing it can hardly be a work of art, however well it may be done. A thing worth doing which is ill done is hardly a thing at all.

Fortunately people are artists who know it not—bootmakers (the few left), gardeners and basketmakers, and all players of games. We do not allow shoddy in cricket or football, but reserve it for serious things like houses and books, furniture and funerals.

Once more let me try to make it clear that by art, instructed thinkers don't only mean pictures or quaint and curious things, or necessarily costly ones, certainly not luxurious ones. They mean worthy and complete workmanship by competent workmen. . . . Art is Thoughtful Workmanship.

Danger of Over-ornamentation

One may note that over-ornamenting is a frequent fault: fussiness, a passion for filling up spaces instead of using them as part of the design. The (alleged) artistic spacious over-lapping of the covers of booklets is an excellent instance of misapplied artistic decoration. The over-lapping edges break easily, seldom reach their reader unspoilt, and therefore conspicuously defeat their object.

I do not wish to speak as if cost is a subject which can be ignored. Good material will always cost more than bad, and good work ought to cost more than bad, but the man of business should always think in terms of the effect to be produced.

It has been urged against advertising in general that the tricking out a case with every device of clever writing and illustration can make a bad article appear better than a good; or, to put the thing more fairly, a less good article appear the equal of a better. There is a certain truth in it but no sort of argument against intelligent advertising.

To take a fair parallel: a well-dressed man with distinguished manners may have some crookedness up his well-cut sleeve; but dressing badly is no guarantee of honesty. The only conclusion seems to be that if your case is better than the other man's, see to it that (your hat or) your circular is at least as good as his.

As the world is constituted, judgements have to be

made on first impressions. That is why even the most honest soul, if he be prudent, does give his coat an extra brush and his tie a final adjustment before he has an interview, say with a prospective employer. And the employer (please note) would in nine and a-half cases out of ten be justified in arguing from an obviously untidy habit of person to evident unsuitability of the applicant for the job in question.

Distinguished Design in Commercial Work.

CHAPTER VIII

A SHEAF OF PRACTICAL EXAMPLES

IT will be convenient to insert here a section of practical examples to illustrate the points made in the previous chapters.*

The necessity for reproducing the work in miniature, in half-tone and mainly in monochrome, detracts very considerably from the actual value of the examples. But certain general features, such as the choice of good lettering, whether from type or hand drawn, attention to principles of balance and the apt arrangement of margins will be observed.

Perhaps the writer has a certain bias towards simplicity of arrangement, but that he thinks will be found to be the experience of those interested in any craft: one's early taste is a little more exuberant than that formed by later judgement and experience.

The beauty of the first four examples is mainly the result of good spacing and placing. To wish to cover every available space with decoration is a common effect of over eager amateurishness. The effective contrast due to the sparing use of the second colour is of course lost in the monochrome illustrations.

A somewhat more elaborate effect is achieved in the fifth example on p. 84, to which, however, the small reproduction hardly does justice. It was printed in one

*I wish again to express my thanks to the publishers, Messrs. W. H. Smith & Son, for access to their stores of admirably printed illustrations of current commercial work. If I am naturally prejudiced in favour of the traditions of a house where I received the best part of my training, readers will be able duly to discount such prejudice. But the fact of such a wholesome tradition is in itself significant, and the examples abundantly prove that printing loses nothing of its practical value for being designed and executed according to certain exacting canons of good taste.

colour, the subordinated grey of the outer border being obtained by half-line engraving.

The following pages of examples illustrate normal commercial work attaining a high standard of good taste, and representing an excellent ideal of decorous simplicity. The lettering is to be particularly noted; even in the more elaborate designs it never degenerates into that futile flamboyance and eccentricity which mean illegibility and therefore essential failure.

If it be urged that the essence of advertisement is variety, one can counter by pointing out that variety for the sake of variety attains no end and may certainly be bought at too great a price. But it cannot reasonably be claimed that there is any lack of variety in the examples here chosen, even though they come from the same press and their choice is the choice of one collector, who naturally does not expect altogether to escape his own prejudices.

The following examples deal with accessories of the business house. The important questions of note papers, labels, correspondence cards, announcement cards, postcards, trade marks and the like.

The *Sheba* series on page 89 is worth noting as an example of a motive carried consistently through a variety of subjects. The mark of the Arden Press on p. 90 has always seemed to me an ideal design; p. 91 shows it adapted as an end paper. In these days of rapid and cheap, indeed too cheap, process engraving, there is little excuse for a firm denying itself the pleasure and profit of having its own ornaments, and allowing itself to be dependent upon the unsympathetic or hackneyed productions of the type founders.

Though this be not a treatise upon advertising, one cannot resist at this point stepping aside to note how short-sighted a policy it is in business men to lose that extremely valuable continuity of advertisement which

is secured by a consistent series of designs, adroitly linked and appearing in some form or other on all the firm's stationery and packages. The rather clamorous votaries of the "do it now" and "it's your money we want" school in their very legitimate endeavour to exalt the claims of direct and forceful advertisement, have perhaps rather tended to obscure the enormous importance of indirect advertisement as exemplified in appropriate decorative treatment.

Naturally this sort of treatment applies more particularly to propositions that appeal to the better educated classes, and it has always seemed to the writer quite incredible that appeals so designed should be so often lacking in this important element.

Business men have indeed moved further in the right direction than the innumerable institutions and societies, who in the aggregate publish an enormous quantity of explanatory or proselytising literature, and present it in the most unseemly way, largely no doubt owing to some preposterous notion that money spent on decoration is money wasted. Money spent on decoration (and by decoration is not necessarily by any means implied elaboration) is money spent on making a given message more likely to be read by the one to whom it is sent. It is only by a philosophical precision of language that it can be called indirect advertisement; it is really as direct as, to quote a homely but always significant illustration, putting on your best clothes for an important interview.

As an ounce of practical example is worth a pound of vague precept, the advertising of, say, Heal & Son, Dryad Furniture and the Orchestrelle Co. may be profitably studied in current periodicals as an example of how an atmosphere suitable to the standards of the house may be contrived by paying consistent attention to this matter of suitable decoration.

The following examples are taken from current *commercial* work from the Studio and presses of W. H. Smith & Son. The writer has made no attempt to represent the finer bookwork. Truth to tell the miniature representation does no sort of justice to the material, even in the more obviously decorative examples. Fine bookwork, depending as it does on a certain reticence and severity of arrangement, on beautiful paper and very careful presswork, would lose even more of its quality by being transferred in miniature to the shiny-surfaced, clay-laden, brittle paper which it is necessary (against the prejudices of the present writer) to use in order that the fine detail of the small-scale reproductions be not altogether lost.

In the five first examples, pages 82-84, the notable feature is the care with which the type panels are placed on the paper. In No. 1 the headlines, section numbers and little acorn ornaments are in vermilion, the text in 12-point Plantin; hand-made paper with deckled edge was used, the whole bound in boards with green paper covering, gilt lettered, and with silk marker. A good example of a form of advertising designed for a relatively few fastidious, important (that is potentially lucrative) customers.

The headlines, side notes and decorative initials in No. 2 are in vermilion. The Tudor type and clever archaic illustration contrive with the Plantin text to give the desired admixture of medieval and ultra-modern. No. 3 is in black only—the reduction has overweighted the black of the illustration. No. 4 has initial letters of cobalt blue. No. 5 is printed in black only. The greys are produced by "half-line" engraved line blocks: the machinery vignettes are inset half-tones.

The examples of booklets and circulars on pages 82-87 naturally lose much of their effect, as the colours of the inks and the texture of the papers cannot be shown.

Summary of Detail

and Carriages. We wish to put this on record here to discount whatever of bias we may be supposed to have in favour of this particular medium. For the same reason we wish our clients to enter into negotiations and make their contracts quite independently with our Railway Advertising Department at Kingsway.

Nine

¶ WE WILL NOT HANDLE THE SERVICE ACCOUNTS OF TWO DIRECTLY COMPETING FIRMS.

Ten

¶ WE CLAIM OUR CLIENTS' INDULGENCE—in their own best interests—for a certain independence of attitude in our preliminary conference and inquiries. It is our experience that plans often take a wrong turn owing to the suppression of vital information. This false step has to be corrected later with loss both of time and money.

¶ There should, we hold, be absolute

Such and Such Men

confidence between our client and ourselves. We do not care to conduct the advertising of any house that feels unable to extend this confidence to us.

Eleven

¶ WE HAVE SET DOWN THE SUBSTANTIAL FACTS relative to our equipment and organization.

¶ The inferences have been entirely left to the judgement of readers.

¶ But in advertising, it is Personality with all that it implies. Personality directing & inspiring Organization that counts.

¶ It is the services, the ideas of *such and such definite men*, which, in the end, make the effectiveness of Advertising plans.

¶ Any manufacturer or substantial retailer who thinks there is in this Book a *prima facie* case for the soundness of our claim can make an appointment and conduct a detailed examination on the spot—the only really satisfactory test.

¶ He will be able to judge whether the heads of the various departments, who

1. *An Advertising Agency Announcement.*

In the Great Hall

BYSBURGH appears to have had an exciting time of it to judge by the minutes of the next Royal Council held in the great Hall a sennight later.

There were present, beside the King and councillors, the Herald of the "Lambskin" (recently knighted), the Scrivener (in chains), the Cardinal Archbishop and the Lord Tattenham de Gaicté, the committee of the Veterans' Club, the irevitable Baron Thruster and others.

The baron was in a chastened mood. He appeared before the King and Council, he said, at the request of his committee to make amends for the trouble which his recent hasty conduct had caused to his fellow clubmen, to the townsmen, and, not least, to his ennobled self.

Sir John makes amends

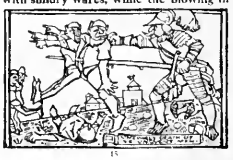
The "Lambskin," deprived temporarily of the invaluable services of Sir James Hustler (here he made a ceremonious obeisance to the new knight, who implored him not to mention it) had duly appeared (as ordered by His Majesty) with only the murders, battles and sudden deaths, and nothing whatever about the oats, unguents, potions, loaves, ribbands, herbs, weeds, rathanes and the like. He and his fellow clubmen had indeed congratulated each other, and all had gone

14

Ye Revolte in Bysburgh

well for three days. On the fourth he was startled from his favourite armchair by the loud clanging of the Cathedral fire bell. He, with his friends, had rushed there only to be told by a hired band of ruffians that the miraculous unguent was still to be had at the Pill and Pestle for thirteen pence and a half. He slew a score or so of these base rapscallions and, on returning to his club, encountered a number of stout vagabonds in the guise of King's men-at-arms, who roared lustily ao exhortation to purchase Spillette Blades, and to be sure and drink Canary Cocktails as drunk by Sir John Falstaff and members of the nobility and gentry who knew a thing or two. The city was in an uproar "as of a stark siege." Waggons rumbled through the streets laden with sundry wares, while the blowing of

Sorry Enterprise of the Unguent



Fate of ye Unguent Men

15

2. *An "indirect" Advertisement for "Scribner's."*

SOME CREATURE COMFORTS

of the firm's activities. Heal's have been wise in their programme of specialization, and as is fitting, their focussed effort has resulted in many characteristic devices for comfort and convenience.

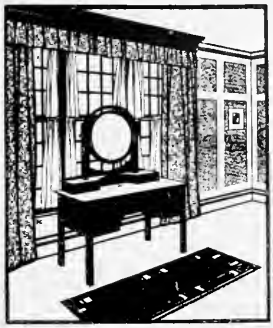
The Sommier Elastique Portatif, invented by a member of the firm some years ago, is of an Elysian standard of luxurious comfort, and I have seen a letter from a customer describing one "as good as new, after forty years' constant wear," and certainly they are constructed on the only plan that can ensure such vitality.

The pillow-bolster is a flat, carefully filled bolster, designed to replace that monstrous and nightmare-compelling contrivance of the Victorian era—the bolster *à la saucisson*.

The hair-down pillow is scientifically compounded so as to give a maximum of resilience and softness with the minimum of heat, and certainly solves an acute problem.

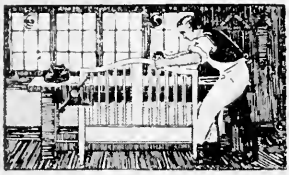
And then there are those neat little brass tramways for the modern type of twin bedsteads, designed to save the carpet (and the housemaid).

Thus we come to the making of the bedsteads. Of course, to meet demands of varying



A REFINED SIMPLICITY

3. *A disquisition on Furniture.*

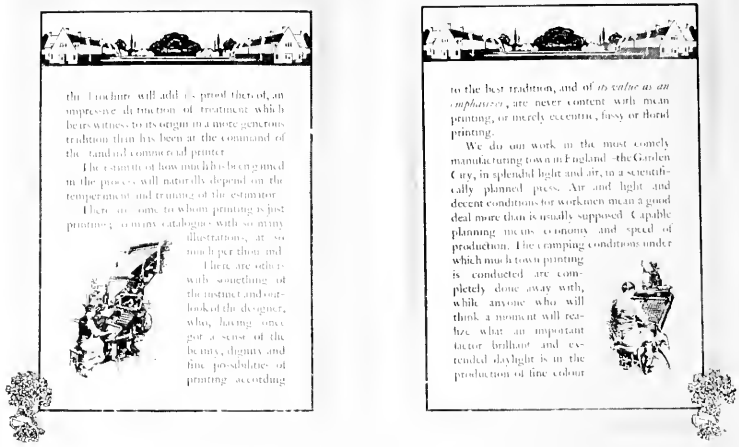


Of course there is a machine production of furniture which cuts out practically all this fine selection and skilled work and leaves merely the dull labour of rapidly assembling the various machine-cut parts to be performed by the routine workman. And this of course makes notably for cheapness of production. Anyone who has struggled with a recalcitrant drawer in, say, a modern seaside hotel or boarding house will have his own opinion as to whether such cheapness may not come too dear.

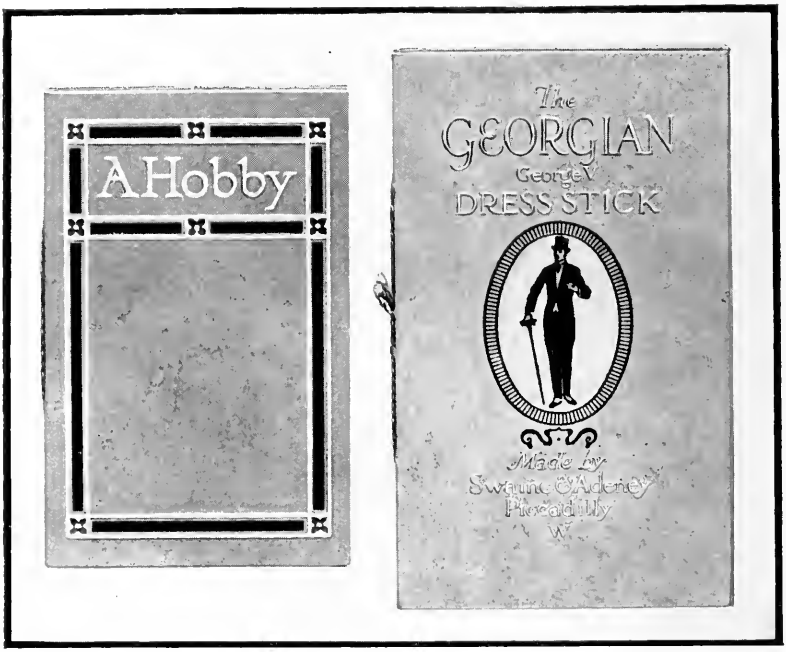
If the machine could in fact produce what a craftsman can produce, there would only be sentimental reasons for refusing to go to the furthest limit in the use of machinery. But the happy truth is that the craftsman's fine skill is at every important stage of woodworking beyond the power of the most delicately adaptable machine, however competently and intelligently handled.

Analogous things can be said of the work of upholstery. One cannot, of course, claim that the apt treatment of the appropriate material for a fine mattress is precisely a work of art, but it is a work of extremely capable craftsmanship when properly done.

4. *A note on "Workmanship."*

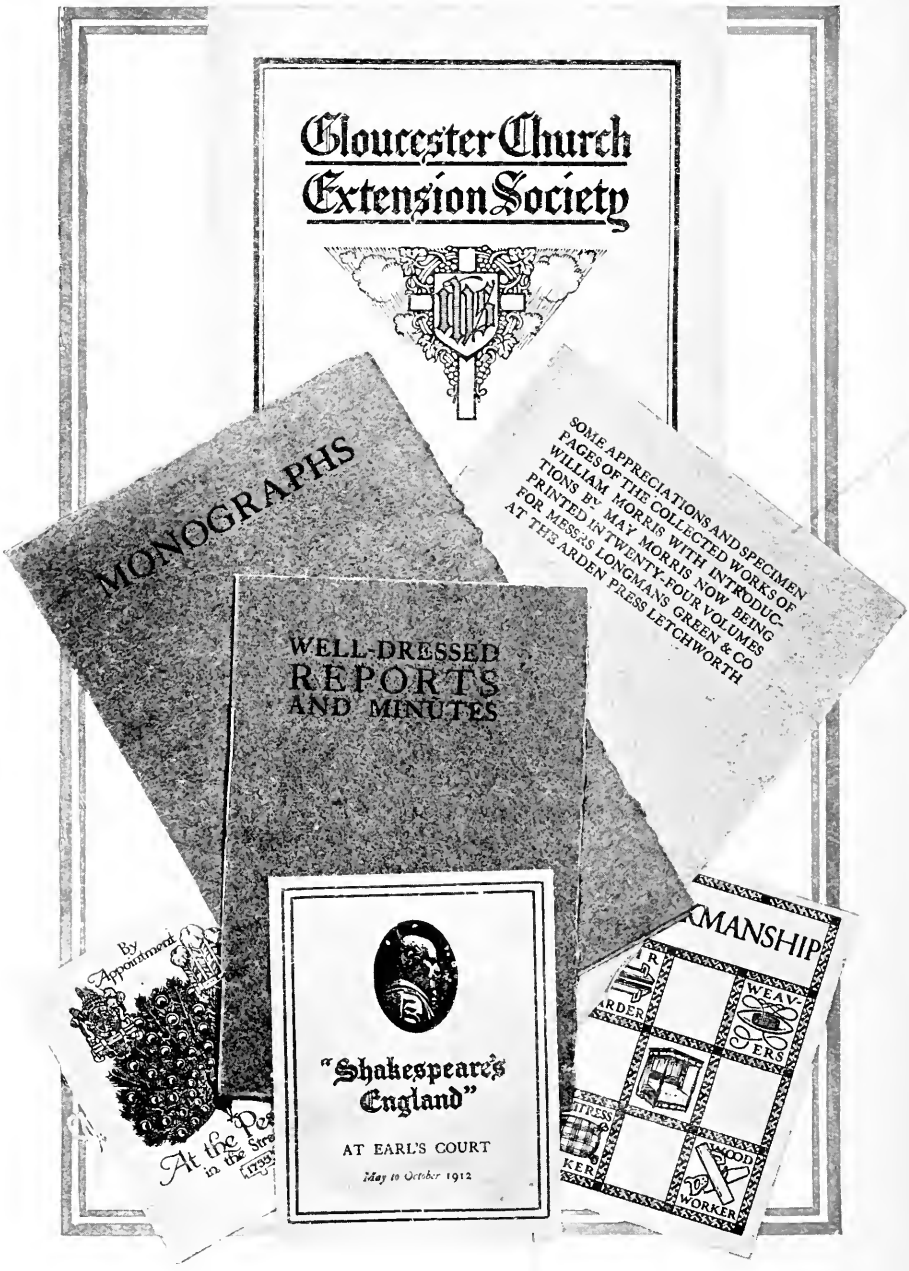

the brochure will add its proof thereof, an impressive distinction of treatment which bears witness to its origin in a more generous tradition than has been at the command of the standard commercial printer
The exact nature of how much his being gained in the process will naturally depend on the temperament and training of the estimator
There are some to whom printing is just printing; so many catalogues with so many illustrations, at so much per thousand
There are others with something of the instinct and outlook of the designer, who, having once got a sense of the beauty, dignity and fine possibilities of printing according
to the best tradition, and of *its value as an emphasizer*, are never content with mean printing, or merely eccentric, fussy or florid printing.
We do our work in the most comely manufacturing town in England—the Garden City, in splendid light and air, in a scientifically planned press. Air and light and decent conditions for workmen mean a good deal more than is usually supposed. Capable planning means economy and speed of production. The cramping conditions under which much town printing is conducted are completely done away with, while anyone who will think a moment will realize what an important factor brilliant and extended daylight is in the production of fine colour

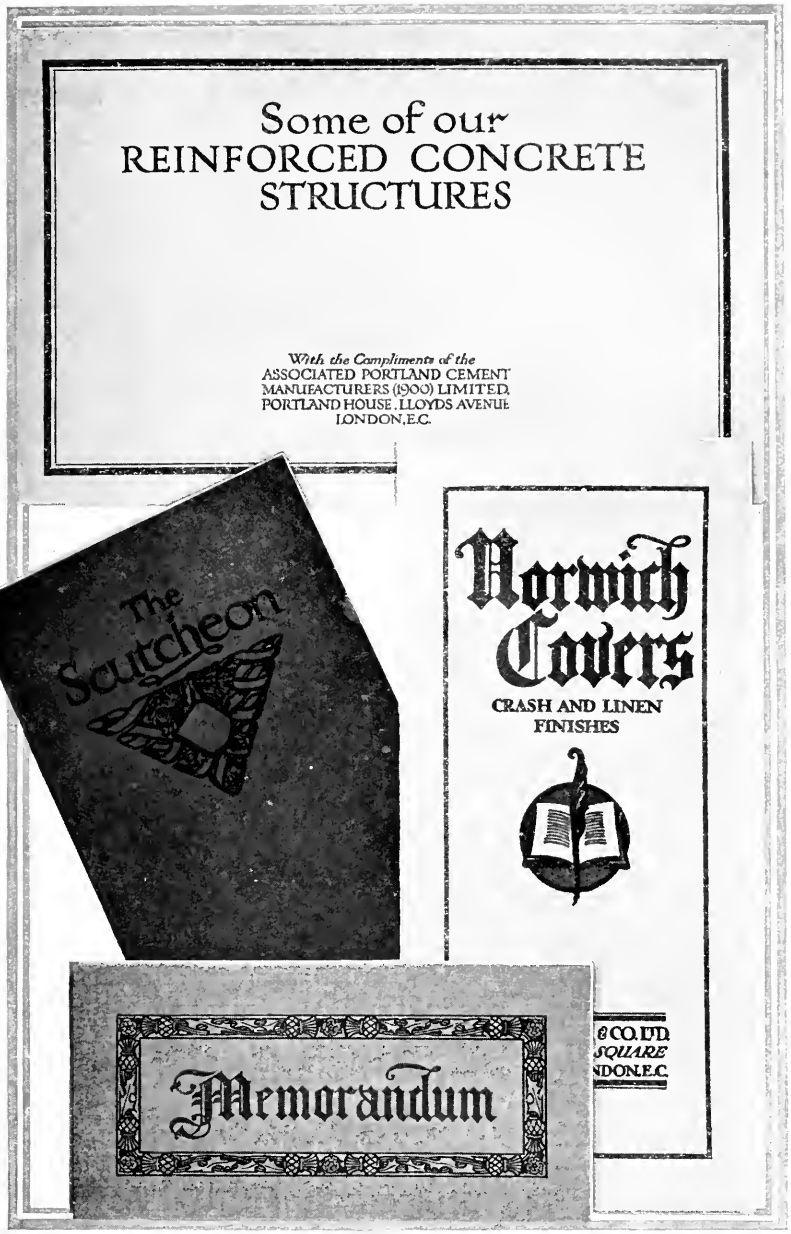
5. *Advertisement of a Country Press.*



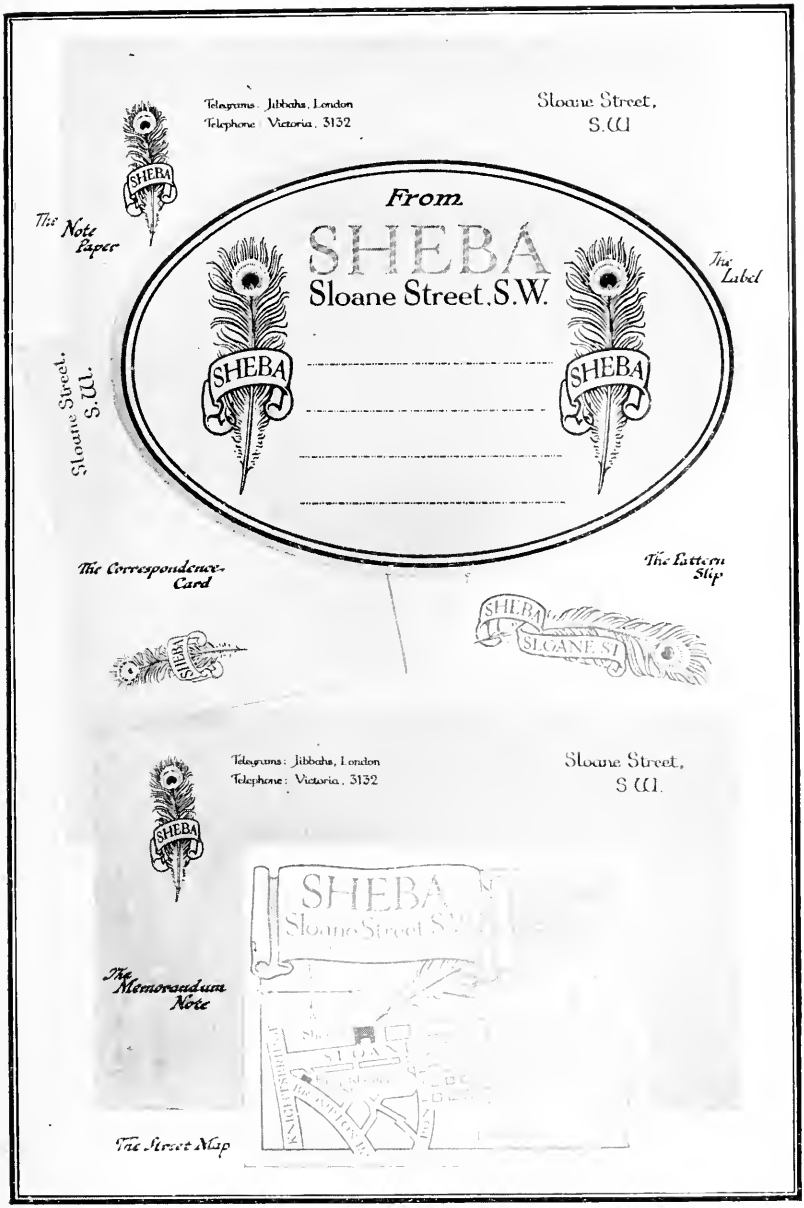
6. *Two Small Business Booklets.*

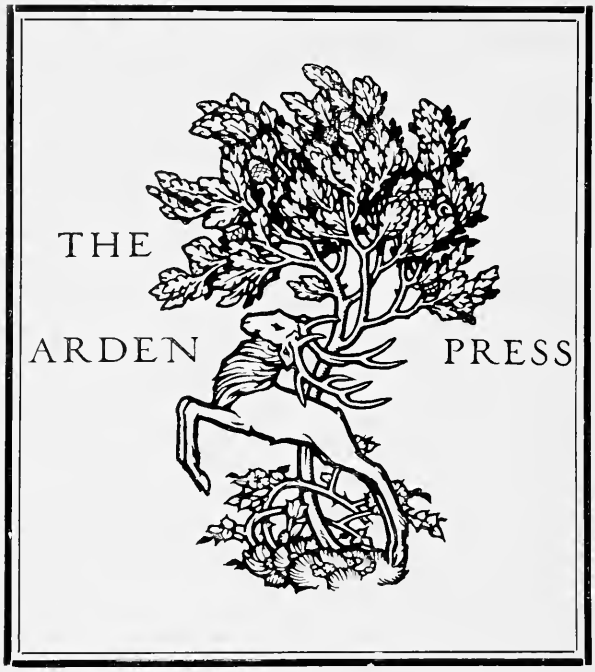
An
INVITATION
TO VIEW THE
WHITEFRIARS
GLASS WORKS
From
THE TATLER
August, 1710.
AT the Flint Glass House in
White Fryars near the Temple,
are made and sold by Wholesale or
Retale all Sorts of Decanthers
The
Pure Milk
Problem
Corset
Palais
Royal


Gloucester Church
Extension Society
MONOGRAPHS
SOME APPRECIATIONS AND SPECIMEN PAGES OF THE COLLECTED WORKS OF WILLIAM MORRIS WITH INTRODUCTIONS BY MAY MORRIS NOW BEING PRINTED IN TWENTY-FOUR VOLUMES FOR MESSRS LONGMANS GREEN & CO AT THE ARDEN PRESS LETCHWORTH
WELL-DRESSED
REPORTS
AND MINUTES
"Shakespeare's England"
AT EARL'S COURT
May to October 1912
By Appointment
At the Pe
in the Stre
MANSHIP
WEAV-
ERS
WOOD
WORKER


Some of our
REINFORCED CONCRETE
STRUCTURES
With the Compliments of the
ASSOCIATED PORTLAND CEMENT
MANUFACTURERS (1900) LIMITED
PORTLAND HOUSE . LLOYDS AVENUE
LONDON, E.C.
The Scutcheon
Norwich Covers
CRASH AND LINEN
FINISHES
Memorandum

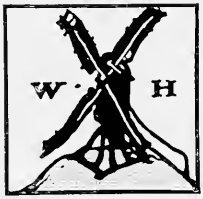
THE HOUSEHOLD BRIGADE
MAGAZINE
W. H. SMITH & SON
Railway Advertising Contractors
KINGSWAY
Telephone
5630 HOLBORN
Telegrams
Bookstalls Estrand
London
MARIE CLAIRE
Yvonne McKinnon
Adola Ltd
21 South Molton St.
London, W.
Tel. Mayfair 4648.

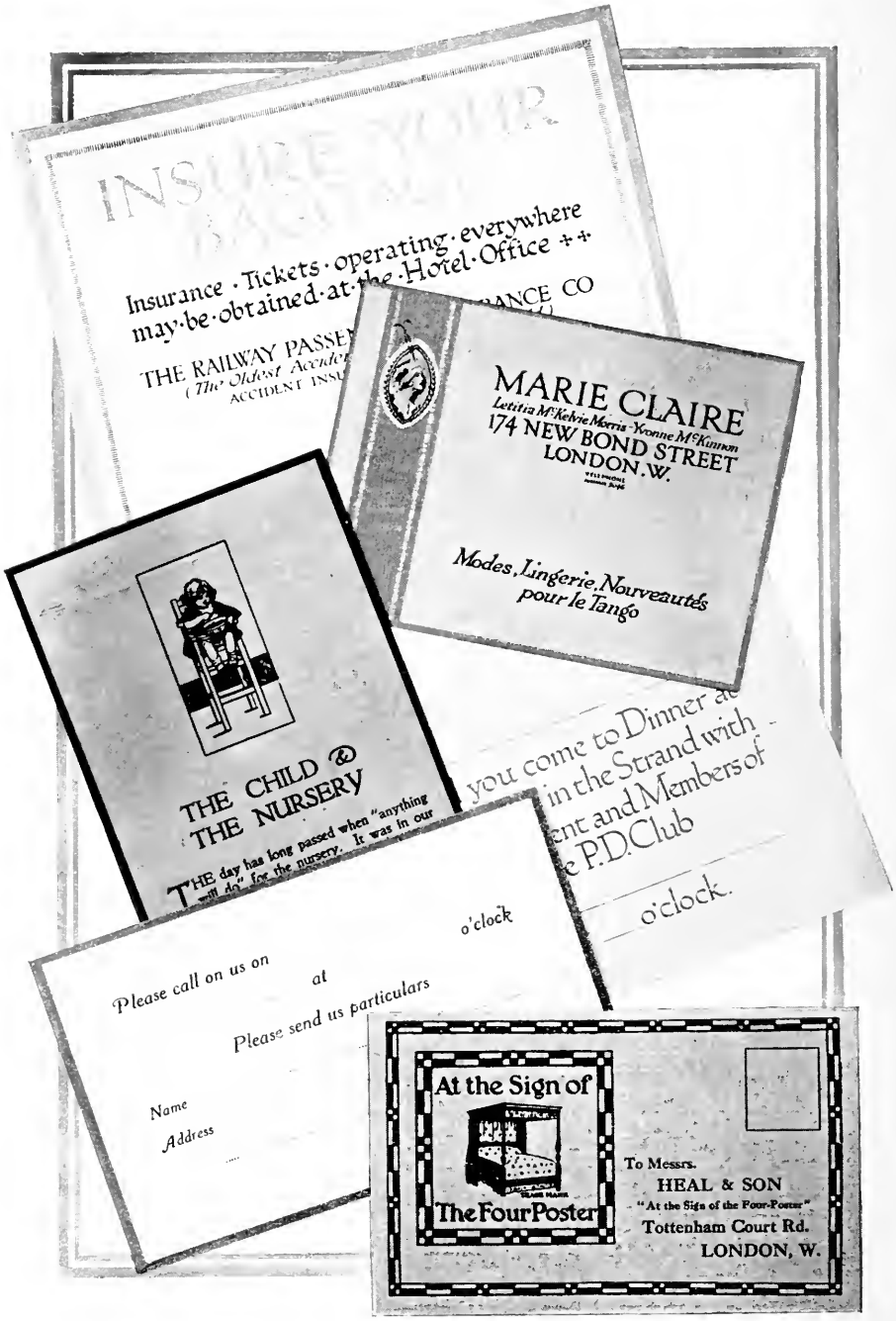

Telegrams: Jibbahs, London
Telephone: Victoria, 3132
Sloane Street,
S.W.
From
SHEBA
Sloane Street, S.W.
SHEBA
SHEBA
This Note Paper
The Label
Sloane Street, S.W.
The Correspondence-Card
The Pattern Slip
SHEBA
SLOANE ST
Telegrams: Jibbahs, London
Telephone: Victoria, 3132
Sloane Street,
S.W.
SHEBA
SHEBA
Sloane Street S.W.
The Memorandum Note
The Street Map



But they serve well as specimens of judicious spacing, and it will be observed that no letters of an eccentric design are employed. This, indeed, is significant of the whole series in this section. Pages 88-89 show examples of miscellaneous stationery, the "Sheba" series on page 89 illustrating the consistent use of a trade-mark in various forms of stationery.

The trade-mark of the Arden Press, designed by Paul Woodroffe, has always seemed to me one of the best possible. It is adapted as an end-paper on page 91. Mr William Heinemann's windmill mark, designed by William Nicholson, is another admirable example. It seems well worth while commissioning a distinguished design when it is to appear so often.




INSURE YOUR
Insurance · Tickets · operating · everywhere
may · be · obtained · at · the · Hotel · Office
THE RAILWAY PASSE
ACCIDENT INSU
MARIE CLAIRE
Letitia McKelvie Morris · Yvonne McKinnon
174 NEW BOND STREET
LONDON. W.
Modes, Lingerie, Nouveautés
pour le Tango
THE CHILD &
THE NURSERY
THE day has long passed when "anything
you come to Dinner at
in the Strand with
ent and Members of
e P.D. Club
o'clock.
Please call on us on
o'clock
at
Please send us particulars
Name
Address
At the Sign of
The Four Poster
To Messrs.
HEAL & SON
"At the Sign of the Four-Poster"
Tottenham Court Rd.
LONDON, W.

CHAPTER IX

PHOTO-MECHANICAL PROCESSES OF ENGRAVING

IN the earlier chapter on the general idea of printing, a brief and, I hope, intelligible summary was given of the main features of the four methods of printing, distinguished according to the nature of the printing surface:—*relief;*

flat or lithographic;
intaglio;
off-set.

Naturally the user of this manual will be mostly concerned with the photo-mechanical processes of reproducing drawings by the aid of the printing press, there being, unhappily, very little commercial use for handicraftsman's work apart from a still large volume of more or less degraded "trade" wood blocks for catalogue illustration.

It will not be necessary to go into the ultimate technical complexities of the many competing methods and processes. But a brief survey of salient points will make study, however superficial, in a fascinating field of human invention easier and more profitable.

Line and Tone

One may conveniently divide photo-mechanical processes of reproduction into black-and-white processes and tone or light-and-shade processes. There is, however, a possible confusion of thought here which needs clearing up.

Let us look at the matter from the printing press end and, to simplify the problem, rule out the question of

colour, and deal only with black monochrome; and, further, confine ourselves to relief plates. From this point of view all reproductive processes are black-and-white processes. That is to say, the ink is everywhere of the same density. There are no "greys" such as appear, e.g., in a wash drawing where the ink has been diluted or modified with white. Whatever masses, lines or dots appear raised on the plate, are inked equally by the same uniform coating of ink. How then are the gradations of tone formed?

If one looks at the handicraft processes (whether relief, flat or intaglio—for example wood engraving, lithography, copper-plate or steel-engraving), we find the craftsman interprets the varying tones of his original by lines or dots. His dark greys are the result of lines thicker in themselves or closer together; or of dots larger or closer together. He can in fact produce

an Illusion of Greys

or tones by the arrangement of dead black lines or dead black dots striking the eye in conjunction with the whites of his paper.

When the camera came into the field it was obviously a simple matter to photograph on to a prepared plate any black-and-white original and etch (or eat) away with acid what the wood engraver would have cut away. The zinc line-block is, then, from that point of view, no more than a very obvious development of the wood-block, and it may be recalled that before its invention artists' drawings used to be photographed on to wood blocks to lighten and make more accurate the work of the wood-engraver.

The Problem of Tone

But the problem to be solved by the photo-mechanical processes was the reproduction of an original,

whether a solid object or scene with its normal play of light and shade (or, more commonly, a photograph of these) or a drawing in which tone was represented by graduated washes, not by line and stipple.

The Half-Tone Principle

Two principles came into play:

1°. The ordinary photograph (silver-print, say) depends upon the action of light on a film of sensitized gelatin. Just *in proportion to the strength of the light* is the effect on the film. A high light in the "copy" will send a good deal of light on to the film; that is, will make the negative in that place very opaque; so that the positive or print again shows a high light. This applies correspondingly and proportionately to black and all intermediate tones.

2°. As we have seen we can produce an illusion of greys or half-tones by an arrangement of dead black dots. Now we could produce a given series of greys of varying degrees of depth by a given series of dots *of exactly the same size arranged at different distances;* or by a given series of dots *of different sizes at exactly the same* distance from each other (reckoning from the centres).

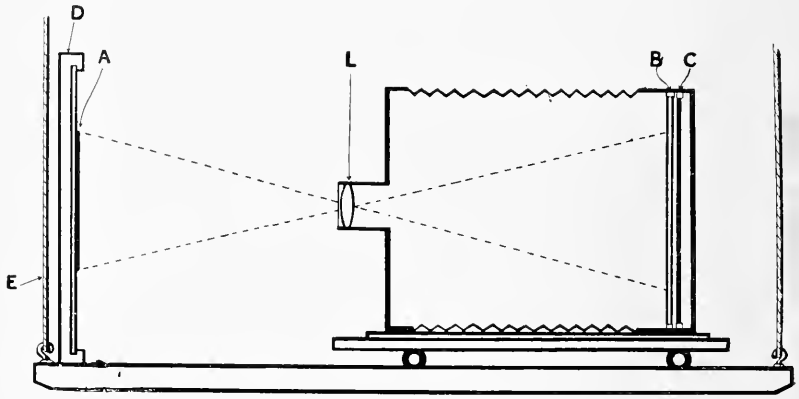
It is this latter arrangement which is employed in the half-tone plate, and which was made easy by the introduction of the Levy screen.

Action of the Levy Screen

This consists of two sheets of plate glass ruled with parallel lines which are etched into the glass and filled in with black pigment. The sheets are so sealed together that the rulings cross at right angles to each other.

The original ("copy") and camera are slung on a frame to prevent, or to ensure equal, vibration. The

Levy screen is placed at B between the lens and the sensitive plate and has the effect of breaking up the subject into a number of squares. These are not, as



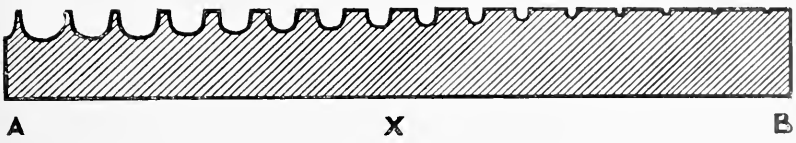
sometimes suggested, the equivalent of little lenses (or there would be as many tiny images as squares);

Windows, not Lenses

but they are in effect tiny windows through which pass a greater or less degree of light, greater for the light parts of the subject, less for the dark. This process reversed on the plate gives each little dot the relative value of the corresponding part of the subject which was opposite its particular window.

It should be noted that in a half-tone plate there are (normally) no absolute whites and no dead blacks. A very small point of black is found in the high-light squares, because obviously *all* the light does not get through the window; a very small point of white in the darkest, because *all* the light is obviously not excluded. Obviously these effects can be deliberately modified. High-lights can be engraved. If it is desirable to lighten any part of the block the other parts can be protected and the desired part re-etched.

Here is a highly magnified section of a half-tone plate;



AX being a light part, BX a dark part of the original.

The flat tops of these little hills being the printing points, and therefore needing to be kept the same height, are protected against the acid by an enamel resist. If it is desired to re-etch the part AX to make it lighter, the acid will attack the side of the hill and so crumble away an infinitesimal portion of the top, thus making the printing surface smaller.

On the other hand, if it were necessary to darken BX, a careful use of the burnisher would flatten out the hill-top slightly, making it larger, therefore in effect darker.

Colour Half-Tones

Exactly the same principles are at work in polychrome half-tone plates, with the additional factor of the colour filters. In the three-colour process the colour effect is built up, as a reading glass will show, of dots of the three so-called "primary" pigments—yellow, red and blue.* The three-colour filters take out of the original all the yellow, the red and the blue respectively, and a block of each colour-result is made. The red printing is superimposed on the yellow, the blue upon the red-and-yellow. If one considers that in a 200-line screen plate there are 40,000 dots to the square inch, and three plates to be printed in exact register, one realizes something of the delicacy of ad-

* Red, yellow and blue are not really primary colours of light, which are lake red, bluish green and violet, but secondaries, or mixtures of two primary colours of light.

justment necessary—to say nothing of the overcoming of ink and paper troubles.

The use of the Fourth Block.

It was found by experiment that many subjects gained in definition and depth, in the shadows particularly, by the addition of a fourth plate, which also assured a better rendering of what painters call the "values." This is prepared from an "isochromatic" negative of the object, and the plate made from it is usually printed in a pale grey ink, though sometimes in a black.

Occasionally it is found advisable to emphasize with a special extra colour block some particularly brilliant piece of colour. Later improvements in three-colour work on the part both of engravers and ink makers are reducing the occasions. It is amazing what brilliant patches of seemingly pure, but, in reality, of course, composite, colour, good three-colour plates now show.

For the purposes of this manual the theory of collotype, lithography, etching, photogravure and mezzotint is sufficiently indicated in the Glossary.

Mechanical Photogravure.

In the *Mechanical* Photogravure (which is now a commercially established process and by reason of cheapness a serious rival of the more sensitive and satisfactory Photogravure) the Levy screen is very ingeniously used to provide what was known by the old engravers as the "tooth." The transparent lines of this screen keep intact on the plate a railway of intersecting lines which carry the wiping knife and prevent the ink being wiped out of the dot-hollows. In true photogravure this tooth is provided by the granulations of the bitumen coating. In both processes the property of bichromatized gelatin which makes it less permeable by the mordant *in exact proportion* to the light acting on it is utilized.

SOME PRACTICAL NOTES ON THE PHOTO-MECHANICAL PROCESSES

Line Blocks

LINE-BLOCKS: Normally, Zinc-plates. Better work can be done on copper. Very fine line work needs a copper plate, as the zinc is too crystalline in structure and therefore apt to crumble away. Also etching copper takes longer time and is easier controlled. Very fine controlled etching of delicate line work is worth something more than twice the price per square inch of zinc etching.

Paper for Line Blocks

Paper. A superstition of the printing trade is that any old paper, for choice a loose-fibred wood-pulp "antique" with texture resembling flannel pyjamas, will do (*often does*) for printing line blocks. A fine line block requires almost as smooth a paper as a coarse-screen half-tone. A paper with some such texture as the text paper of this book, smooth but not shiny, is eminently suitable.

Hints for Draughtsmen

The original drawing. Dead black ink should be used. The process takes no account of the *tone* of a mass or line, but only of its thickness or extent of surface. Drawings made in thin or "grey" ink will reproduce "heavy." (Then don't blame the blockmaker.) If lines are whited out take care that they *are* whited out. The camera's eye is sharper than the human. This is more serious in wash drawings for half-tones (p. 109).

Don't make blue pencil marks on your drawing (even if blue doesn't reproduce). It confuses the engraver and dirties the drawing. Put tracing-paper over the drawing and mark on this any notes as to reduction (see p. 39).

colour scheme and other instructions. Prayers to engravers (who are expert finger-printers) to keep drawings clean seldom avail. Tissue coverings are better every way.

Money can be saved by making all drawings for a *uniform scale of reduction* and arranging them suitably —e.g. two odd blocks in a large border.

A single detached unsupported thin line, say, the outline of a cloud, is impracticable. It will break either in the engraver's hands or the printer's. It can often be "supported" by a framing rule.

For explanatory purposes it seems that capable diagrams in line are more practicable (as they can be more decorative) than photographs however skilfully retouched. This book exemplifies the point.

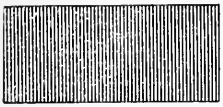
Reduction Limits. From $\frac{1}{2}$ to $\frac{2}{3}$ linear—that is, a drawing 9 inches high may be conveniently reduced to $4\frac{1}{2}$ or 6 inches. Relative values are apt to be distorted if larger reductions attempted. There is an actual minimum practicable thinness of line. To mark drawings for reduction see pp. 39, 40.

SOME VARIANTS OF THE LINE PROCESS

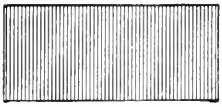
The effect of a line block may often be considerably and cheaply enhanced by a plain or engraved *tint block* printed in another colour, the two printings being superimposed.

An equivalent of lithographic work may be obtained, which is very pleasing and not expensive, by the use of flat tint blocks (see opposite).

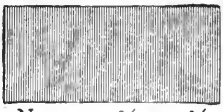
The use of Day's Medium (see opposite) gives a wide range of tones available particularly for broad effects in advertising illustrations on a large scale. An example is found on p. 108. These tints may obviously be used with colour, but perhaps not quite so effectively. In any



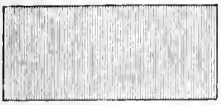
No. 1.—13 x 13.



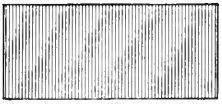
No. 2.—13 x 13.



No. 3.—9¾ x 9¾.

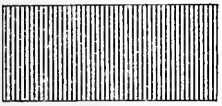


No. 4.—9¾ x 9¾.

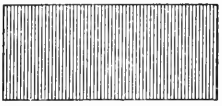


No. 5.—13 x 13.

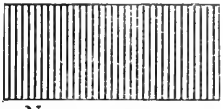
No. 7.—13 x 13.



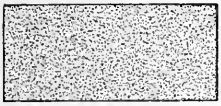
No. 8.—13 x 13.



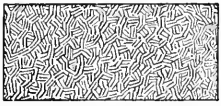
No. 9.—13 x 13.



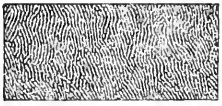
No. 10.—13 x 13.



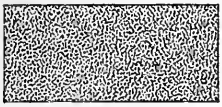
No. 301.—9¼ x 12¼.



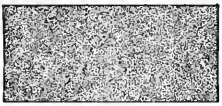
No. 306.—5½ x 6½.



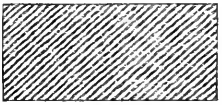
No. 309.—9 x 7¾.



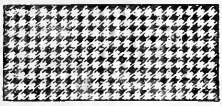
No. 310.—9 x 7½.



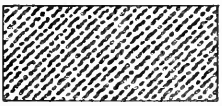
No. 318.—9¼ x 14¼.



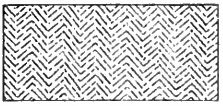
No. 322.—6¾ x 11.



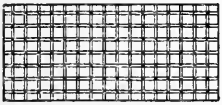
No. 323.—6¾ x 11.



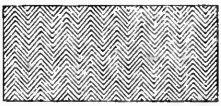
No. 324.—6¾ x 11.



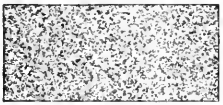
No. 325.—6¾ x 11.



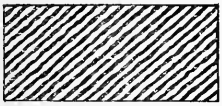
No. 326.—6¾ x 11.



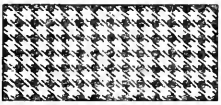
No. 327.—6¾ x 11.



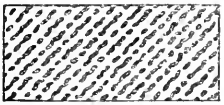
No. 329.—9¼ x 14¼.



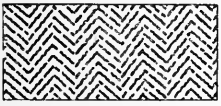
No. 330.—9¼ x 14¼.



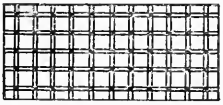
No. 331.—9¼ x 14¼.



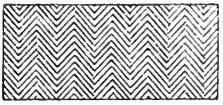
No. 332.—9¼ x 14¼.



No. 333.—9¼ x 14¼.



No. 334.—9¼ x 14¼.

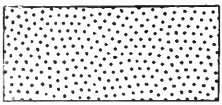


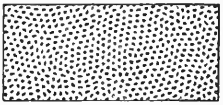
No. 335.—9¼ x 14¼.

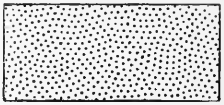
case a severe discretion is to be used in the handling of these tints. The thing can be very easily overdone.

The Use of Day's Medium

This selection from the mechanical tints known as Day's medium may be found useful by advertisers who have the discretion to direct their employment in line engraving work ordered by them. The greatest difficulty is not to lose atmosphere in the drawing, and on the whole the use of Day's medium is better confined to broad treatment of advertising drawings, but not on too small a scale.

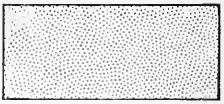

No. 419 B—9¼ x 14¼.

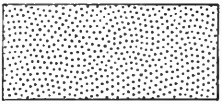

No. 426.—7 x 7.

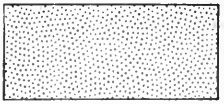

No. 432.—9¼ x 14¼

No. 433.—9¼ x 14¼.

No. 434.—6¾ x 11.

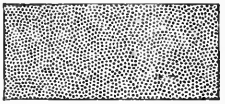

No. 437.—9¼ x 14¼.

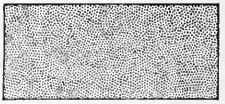

No. 438.—9¼ x 14¼.

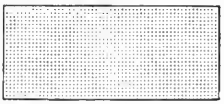

No. 439.—9¼ x 14¼.

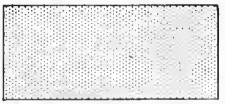
No. 440.—9¼ x 14¼.

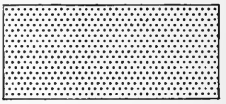
No. 441.—9¼ x 14¼.

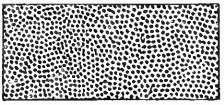

No. 443.—9¼ x 14¼.

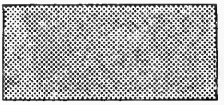

No. 444.—6¾ x 11.

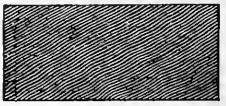

No. 507.—13 x 13.


No. 509.—9¼ x 14¼.


No. 523.—9¼ x 14¼


No. 411.—8 x 5¼.


No. 505.—13 x 13.


No. 602.—4¼ x 4½.

A variant of this drawing with various Day's medium tints laid down on to the block will be found overleaf. The perils as well as the advantages of the method are illustrated.

See outline drawing, p. 103.

A half-tone effect may be produced in the line process from a drawing made on various rough-textured grained boards. The roughness of the paper breaks

the lines into fine or less fine points according as the crayon is lightly or firmly used, and the drawing becomes obviously amenable to treatment by the black-and-white process.

A NOTE ON THE WOODCUT

The woodcut still survives, but chiefly in a degraded state, the hand work being much supplemented by machine rulings, stipplings, etc., for purposes of trade catalogues, and of a somewhat higher grade, for illustrations of machinery. There is no doubt that for technical explanation, a line process, such as a fine woodcut or a fine line drawing, is much clearer. Also, of course, it harmonizes better with the text than the half-tone.

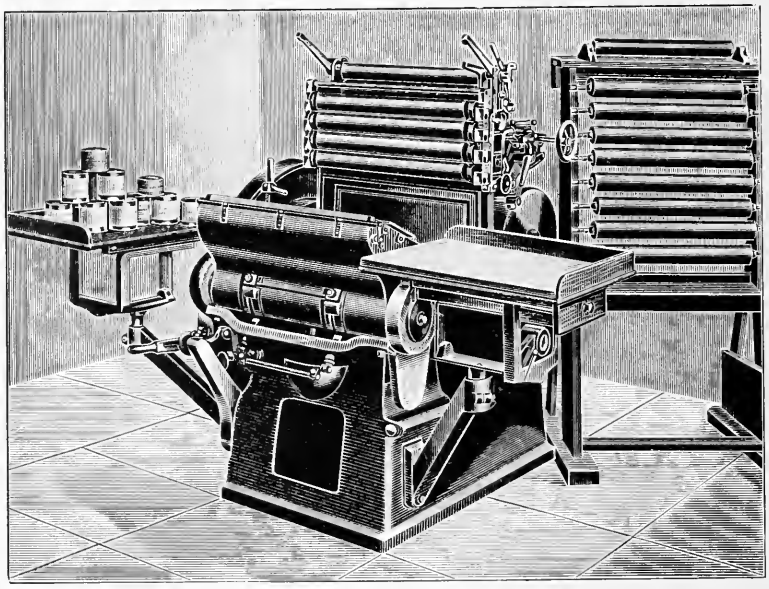
As an artistic craft wood-engraving seems to have a better chance of surviving in America, where more generous patronage is given to it. The work of such men as McCormick and Grassby, and (I suppose still) Mr Timothy Cole is widely circulated. In England perhaps Miss Clemence Housman and Mr Noel Rooke are the most distinguished workers in this medium.

Closely detailed shaded work in woodcuting is obviously laborious, lengthy, and therefore expensive. Wood-engraving, to survive, must recover its truer primitive character of simple line and broad massed effects, such as is found in Mr Rooke's work.

A Sound Commercial Reason

Its specific advantage over black-and-white work is the direct and forcible character of the line obtained by the right and natural use of the graver. It may be observed for the

benefit of intending commercial patrons, that the finest electros can be made from wood blocks, because the cutting is deeper and cleaner than in photo-etching, and the extra cost of the artist's original, distributed over a large number of electrotyped reduplications, is practically negligible. A Dalziel stereo is recommended.



Reduced line engravings from prints of the original wood block preserve a good deal of the character and quality of the original but lack a certain beauty of texture and clearness attaching to hand-pulled proofs direct from the wood.

The illustrations on this and the preceding page are examples of commercial woodcuts something above the average of current standards. This, of a platen, may be compared with the half-tones on page 113 and the line drawings on pp. 10, 11.

The Fifth Milestone

FIVE swiftly moving and momentous years have passed since the doors of this House were thrown open to the world. To-day is our Commercial Birthday, and, this week will be devoted to fitting celebration of that, to us, important happening.

Looking back along the way we have travelled, the road, even with its steep up-grades and places rough and smooth, seems very short indeed to have brought us so far towards our goal, and to have established this House of Business so firmly in the confidence of the Public.

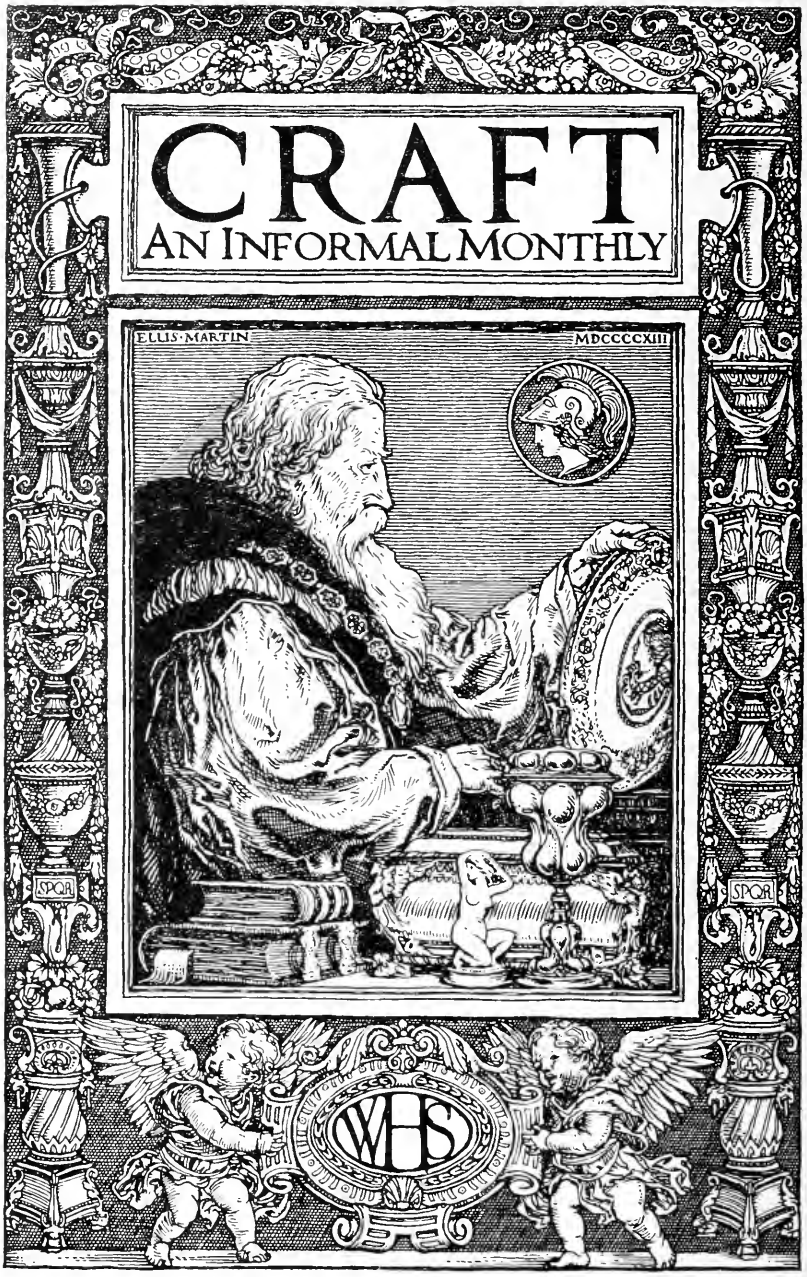
It is a happy augury that our Fifth Birthday celebrations should synchronise with great developments in this Business, and with a knowledge of the splendid opportunities before us, what things the past five years have seen accomplished by favour of the Public are relatively of small account compared to the possibilities the future holds in store.

Thanks to our unfailing Friends and Customers, to their generous appreciation of our efforts to serve them well, and to their oft-repeated kindly expressions of good-will towards this House and all its ways, we pass the fifth milestone of our history to-day exultantly in good heart and courage. With grateful memory of the past we face the future years with every confidence, believing always that the true measure of success in business is not found in prosperous balance sheets alone, but in the increasing number of its Friends.

SELFRIDGES
OXFORD STREET, LONDON, W.
SELFRIDGE & CO., LTD

Copper Line Blocks

This and the illustration on the following page and on page 77 are examples of line blocks engraved on copper. *This is done where the detail, such as the very much reduced lettering on this page, is very fine, as copper etches more slowly than zinc and can therefore be more completely controlled in the acid bath.*


CRAFT
AN INFORMAL MONTHLY
ELLIS·MARTIN
MDCCCCXIII
SPQR
SPQR
WHS

HALF-TONE PLATES

Half-tone work used to cost before the war from 4½d. the square inch up to 7d. the inch for the very finest deep-etched work such as is necessary for the reproduction of pencil drawings. Ordinary vignetting from about 5½d. the inch.

It should be said that half-tone work, as indeed everything else, has been degraded by the passion for cheapness. Even the best engravers have to work down to the standard set by the lowest normal trade price. The demand occasionally made by a courageous printer or engraver for a better price should not be regarded as avarice or bluff but rather as a sincere attempt to permit of better work being done. It is as true of engraving as of everything else that the best work simply cannot be done at the cheapest price. The higher average quality of American half-tone work (compare their standard illustrated magazines with ours) is due to this more intelligent patronage on the part of publishers, and (no doubt!) the larger circulation of their journals.

The Americans often put fine hand-engraving on their half-tone plates. Our hand-engraving in England is—often—of a very rudimentary character. Prices again!

The original "copy" for half-tone engraving, if a photograph:

Needs to be good; i.e. smooth of surface and of black or blue-black tone.
Needs further, probably, to be retouched;
Costs according to time and skill.

For good catalogue work, photographs of merchandise, tools, machinery, etc., need very careful retouching. The cost per square inch rises accordingly: but usually a separate charge is made for retouching or "working-up" originals.

Wash Drawings for Half-tone. The best way to draw for half-tone is to use pure wash—that is a pure black

on a pure white paper—no white being mixed; the greys being formed by dilution with water, the whites left clear. Drawings in which Chinese White is used *never* reproduce with true values. The camera's eye is not the human eye. This however is a counsel of perfection.

A Warning to the Layman

If white is used it must be a true Process White and it should be used as sparingly as may be. If used for correcting it must be remembered that a dark tone that appears covered may not be covered from the camera. Cutting out the high light is better than whiting it in.

Work in *body colour* is, when thoroughly carried out, a very successful mode of drawing for reproduction. The requirements of the photo-engraver are few, but they should be closely followed if complete success is to be attained. The materials needed are pure white paper or board if the background is to be white, or grey paper or board if a toned background is sought; a black and a white pigment; and water.

Where the background is to be white, and darker tones added, the white paper or board is first washed over with a thin wash of the white pigment laid on with a wide flat brush, first in one direction, and then after that coating is dry, in a direction at right angles to the first. In that way a thin but even coating of white is made to cover the whole surface of the paper by way of preparation for the subsequent drawing. Provided this be done completely, it is immaterial what white is used—Chinese, flake, permanent, process, or any other water-colour preparation. But, having fixed on one particular "white," it must be adhered to throughout in the drawing. Then the white is mixed with whatever proportion of (any) black is necessary to give the various tones in the drawing.

Where a toned background is desired, the grey paper or board needs no preparation, but is worked on with any *one* white and black pigment, the white being laid on thickly to cover the grey tone of the paper in those parts where strong lights are desired.*

Pencil drawings may be imperfectly reproduced by ordinary half-tone; fairly well by deep-etched half-tone which etches away the inevitable light grey background which degrades the tones of the drawings. Collotype and Photogravure must be called in to represent pencil-work *adequately*.

A chart of screens of varying degrees of fineness will be found overleaf. It may be considered in general that richer and softer effects can be obtained on dull-surfaced art paper than upon the highly glazed clay-faced paper that it is generally considered necessary to use. The dull papers give more trouble at machine, and the good qualities are expensive.

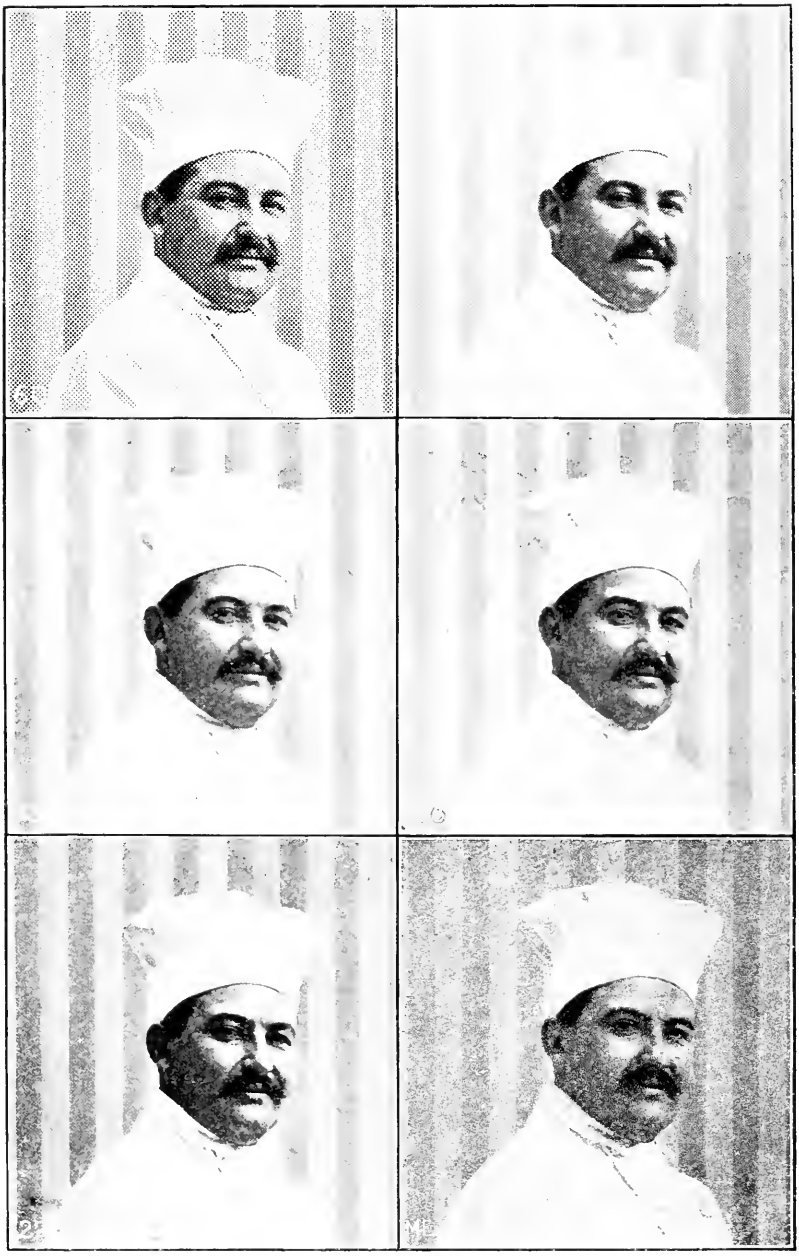
For the very finest screens, 175 to 250, it will be necessary to use a glazed art paper of the smoothest texture. The coarse screens (60) are used for rough "news" paper. And screens up to 120 can be quite well used on an honourable smooth paper such as is used for the main text of this book.

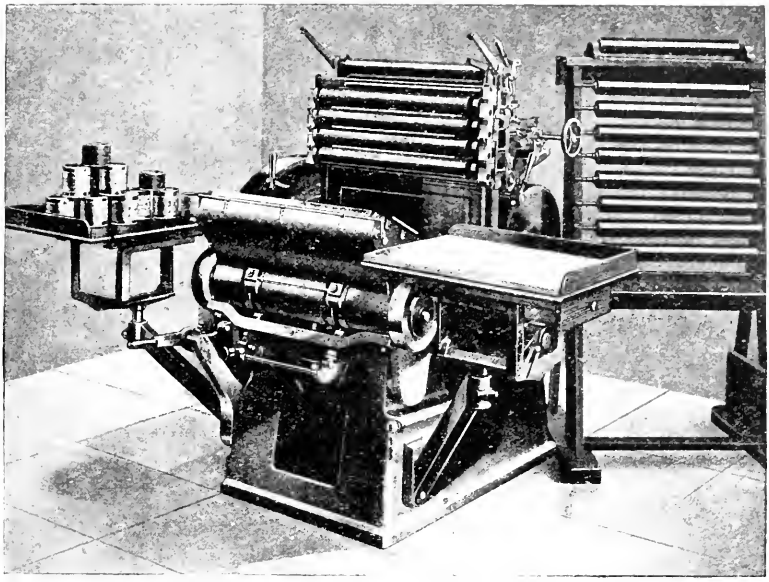
Quite pleasing effects can be produced by printing fairly coarse half-tone (say 120 screen) on a plate-marked surface of a rough cover paper.

Customers should not be too easily discouraged by the printer who says that certain things cannot be done. Like most other harassed men, he is inclined to look for the line of least resistance. It is not good for him nor for the work to be allowed always to find it.

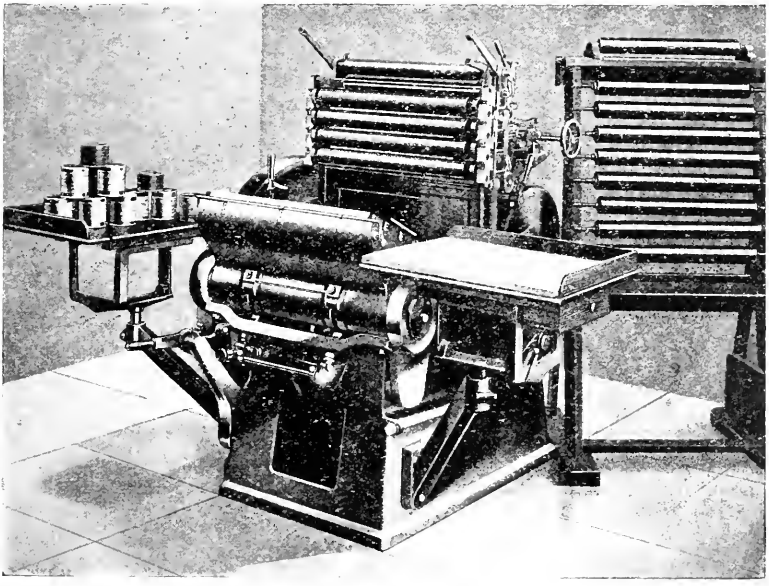
* I take this note on body-colour from an article in the *Imprint*, by Mr Donald Cameron-Swan, to whom I am indebted for other help, criticism and information. The insistence on not using different whites and blacks is that they may well have differing effects on the camera and so throw out the artist's tone values.

HALF-TONE SCREENS COMPARED



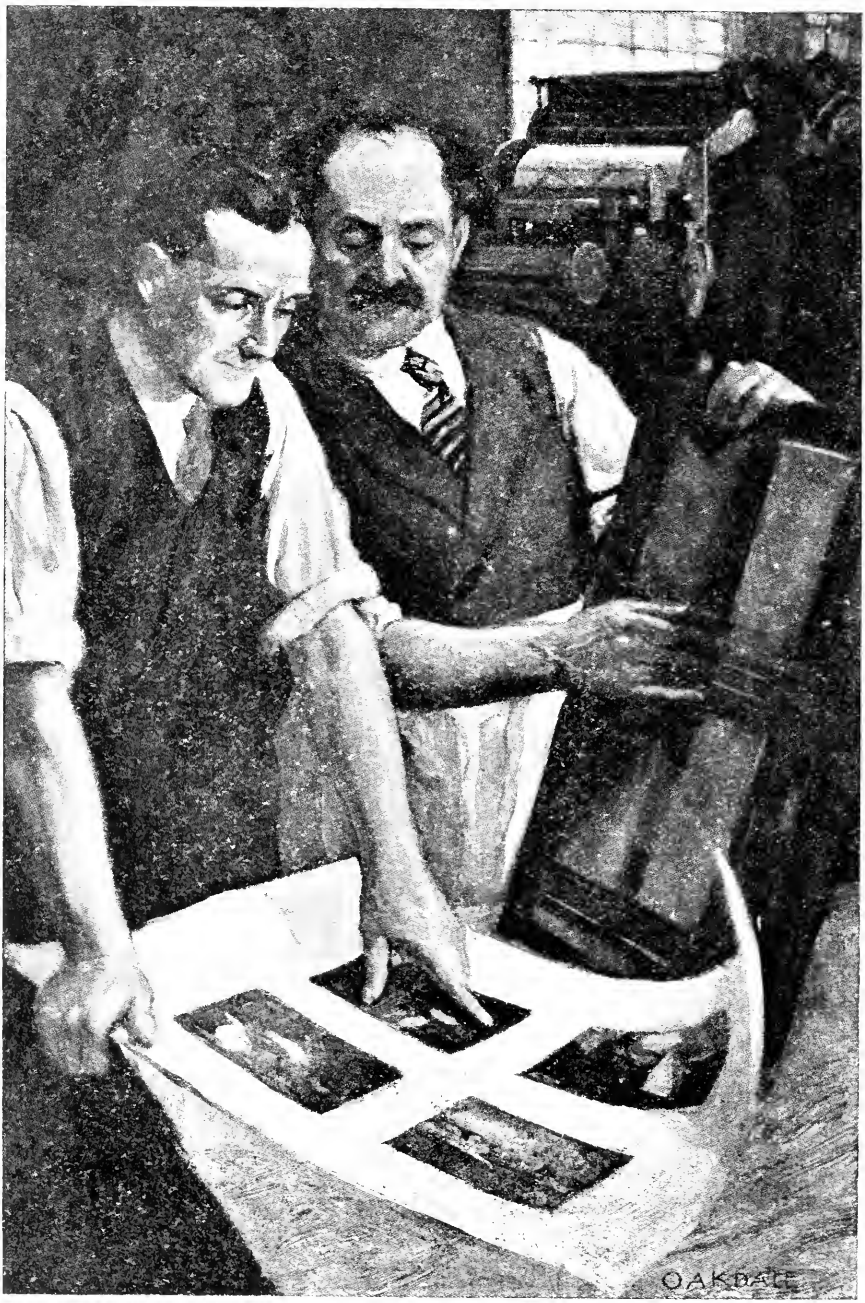


Examples.—Above: half-tone from unretouched photograph; below: from retouched photograph.



Vignetted Half-tone.

Deep etched Half-tone.



"The Inaispensables"

CHAPTER X

SOME NOTES ON PAPER

THE finest hand-made papers are made of linen and cotton rag, used or unused, torn and beaten to pulp of which a measured bulk, being taken into a tray with wooden sides and wire meshed bottom, is shaken by the skilled workman in a dexterous way so as to "felt" or interlock the fibres. This gives the toughness which is the outstanding feature of paper made in this way.

Mould-made paper is paper made in the sheet by machine of material not substantially differing from that used for hand-made. The hand worker's peculiar "lock" or twist cannot be successfully imitated and this constitutes the chief value of the hand variety.

True and False Deckle Edges

The rough edges of hand-made and mould-made papers are called deckle edges. Like all things honourably produced, they have a definite æsthetic value. Nothing but contempt is to be felt for imitation deckles, contrived by the misapplication of ingenious machines.

Pulp made of pure linen makes a paper too hard for dry printing. The very finest hand-mades used by the private presses are damped before printing, a method which is too laborious and expensive to be generally practicable.

The cheaper papers are made on a large scale and in the reel, cut up into sheets and packed in reams.

The great rotary newspaper presses print, of course, on paper delivered into the machine from the reel.

In the cheaper papers the fibres and stems of many grasses and straws are used. And finally, and all but universally for newspapers and the cheapest grades of

pamphlet and book papers, wood pulp, chiefly of the spruce fir.

As to cost: hand-made paper is priced at 1s. the pound and upwards to the beautiful Japanese hand-made paper, called Japanese vellum, at 3s. 6d. the pound. Going down the scale via the rag and esparto papers and the sulphite wood pulps one reaches the mechanical wood pulps at $1\frac{1}{4}$d. the pound.

The section of paper samples at the end of the book will give some rough idea of textures and values.

Amateurs should note their paper prices not by the ream but by the pound, which is the easiest method of comparing relative costs.

Value of Good Paper

The quality of paper is an enormously important factor in the appearance of a book. If the work is bulky and the quantities large, economy may dictate a paper less than ideally suitable. But customers get so much in the habit of using cheap paper that they do not appreciate how for small work or for small quantities they can enhance the value of their printed matter, at no great extra cost, by the use even of the best papers.

While deferring to the *considered* as opposed to the automatic and instinctive judgement of the practical man, amateurs should be ready to make suggestions as to paper and prevent the printer from getting into ruts.

Printer's Grooves

It has long been one of the average printer's superstitions always to fly to art paper for half-tone work, and to think that any kind of paper will do for line blocks. The objectionable surface can be avoided by the substitution of a smooth calendered paper for half-tone of not too close a screen. An example of a half-

tone effectively printed on the text-paper of this book is given (as an instance) on p. 113.

Quite effective half-tone work can be produced, for instance, on cover paper on which a hot pressed plate mark has been used.

Inflated Books

The demand of publishers, who like other proprietors are anxious that their goods should appear as bulky as possible for the price, has led to the production of loosely compacted pulp papers, very light and fluffy, very easily torn, and very difficult to print upon satisfactorily, as they shed a good deal of fluff and modify the brilliancy of the inks. And if you should have to use a paper knife to a book made of this kind of stock, it is as if a paper-chase had passed through your study.

It is perhaps one of the just penalties of a habit of buying and selling books by the cubic foot.

Finally the paper trade is full of ingenious and cunning substitutes. When competing estimates are being compared, paper is a factor that needs attention. The paper sample should be looked well in the mouth.

Surfaces and Textures of Paper

The texture of paper is of course mainly determined by the composition of the pulp ; (pure linen rag, cotton rag, fibre, sulphite pulp, mechanical pulp, clay-loaded pulp, etc.). It is modified by the degree of sizing (hard or soft size) and rolling or calendering which has the effect of making the paper smoother and more compact. Surfaces of paper are also grained by being passed through patterned rollers(e.g. cover paper or bond paper with linen finish), a device which justifies itself by results as the surface is very pleasant.

"Antique" is a term applied to rough-surfaced, cheap papers which are not calendered and only a little sized.

Antiques often have a pleasant surface on one side and an abominable one on the other, a fact which should be taken into account when settling the paper for a book.

The so-called "art" papers have a surface of clay and there are innumerable other manipulations and degradations of material to meet various mechanical problems of the printer.

The function of the clay is to fill the pores of the paper and give a mechanically perfect surface.

Art papers with dull finish are always to be preferred to shiny arts, except for very fine screen (225, etc.) halftones, and English printers have largely overcome their early prejudice against them.

Papers are also distinguished by the terms "laid" and "wove."

The laid paper shows the parallel, wire meshed marks of the tray in hand-made or of the dandy roll in machine made stock. Water marks are also impressed on the paper with a wire device attached to the tray or roll. The paper is in fact a little thinner where the lines of the design show.

In wove papers the closer mesh produces no such markings.

One has to be very careful in the selection of paper on which it is required to write. It should always be tested with a pen. This not only applies to papers for circulars, etc., on which words have to be written, and labels, but to note papers. And it is worth observing that many admirable and expensive note papers are "greasy" to a broad pen, which would be admirable for a fine-pointed. Test with a pen and see that the writing has a clean edge and doesn't spread, and that the pen takes the paper at once and doesn't "skate." Paper should also be opaque so that printing on the underside of the leaf doesn't show through.

CHAPTER XI

ON BOOK-BINDING

THE kind of book-binding that comes to the notice of those who use "printing for business" is not usually of a very advanced order, it is confined to wire or thread stitched booklets, or catalogues not mainly destined to last very long, in which the first consideration is necessarily cheapness.

This manual would not, however, be complete without a glimpse at the higher possibilities of book-binding. The following long quotation from a note on book-binding by Mr Douglas Cockerell treats the matter better than I can hope to do it. I am glad to make my acknowledgments to him for his courteous permission:

"Books for binding can be roughly divided into three classes:

THREE CLASSES OF BINDING

1st. Books of value, or of special interest to their owners, that require to be bound as well as the binder can do them.

2nd. Books of permanent interest, but of no special value, that require to be well and strongly bound, but for which the best and most careful work would be too expensive.

3rd. Books of temporary interest that need to be held together and kept neat and tidy for occasional reference.

In other words, some books must be bound as well as possible regardless of expense, some as cheaply as they can be bound well, and others as well as they can be bound cheaply. Rebinding a valuable old book is, at the best, a regrettable necessity, and if its value is to be preserved, the binder must take infinite pains with every detail.

Such work should be done entirely by hand, and the

binding built up step by step on the book—"made to measure" as it were to suit the needs of the particular volume. Work on which a binder is expected to exercise thought and care on every point must take a long time to do, and therefore must be costly.

CHEAP BINDING "IN BULK"

Cheap binding must be done quickly, and to be done quickly it must be treated "in bulk" without much regard to the requirements of any one book. Up to a point there is no reason why work done quickly should not be done well and strongly, and such work will suit ninety per cent of books. It is the exceptional book that takes time to bind. The thought that has to be expended on a single binding in the one case, in the other case is given to the first model only; leaving the actual workmen free to work more or less mechanically on repetitions of a model with every detail of which they are familiar.

To bind a crown 8vo book ($7\frac{1}{2}$ in. by 5 in.) in full sealskin or morocco of the best quality, carrying out the "Society of Arts" specification I., and doing the work entirely by hand, and as well as it can be done, would cost from 21s. to 25s., with little or no decoration. If the leaves needed special mending or any sizing or washing, or if the cover were decorated with gold tooling, the cost would be a good deal heavier.

As this is too expensive for the binding of any books but those of value or of special interest to their owners, the binder has to consider what features he can best modify or leave out in order to lessen the cost.

VARIOUS ECONOMIES

Obviously, the first thing to cut off will be the decoration; next, by making a "half," instead of a "whole," binding about three-quarters of the cost of

the leather can be saved. A little more can be saved by mending the backs of the sections a little less neatly, and generally by lowering the standard of finish. By saving in every way, but still working to the specification, perhaps the cost can be halved without taking from the strength of the binding. This gives about 10s. 6d. for the cost of a *half-morocco* or half-seal binding of a crown 8vo book, sewn flexibly round the bands, and forwarded and lettered by hand. The cost of the best material on such a binding would be about 1s. 8d., and perhaps half of this could be saved by using inferior leather, *millboards*, etc., but for the sake of 10d. on a half-guinea binding this would be poor economy.

To reduce the cost of binding to this specification much below 10s. 6d. a volume would necessitate a serious and unwarrantable lowering of the standard of work. Recognizing this, the Society of Arts Committee published a second specification for "Library binding." To quote from their report:

> This form of binding (Specification I.) must be expensive, as it takes a long time to do. For most books a cheaper form is needed, and after examining and comparing many bindings that had been subjected to considerable use, we have come to the conclusion that the bindings of books sewn on *tapes*, with '*French*' *joints*, generally fulfil the conditions best.
>
> The points of advantage claimed for a binding carried out under Specification II. are:
>
> 1. It need not be expensive.
> 2. The construction is sound throughout.
> 3. A book so bound should open well.
> 4. The 'French' joint enables comparatively thick leather to be used.
> 5. In the absence of raised bands there is no reason for the undue stretching of the leather in covering.
> 6. The backs of the sections are not injured by saw cuts.

By sewing on tapes instead of cords a smooth back is got, which saves time in the working, as it enables

the backing to be done in the backing machine. Further time is saved by cutting the edges with the guillotine instead of with the plough ; in fact, there is a saving of time at every point.

Limits of "Economy"

By substituting machine work for hand work in backing and cutting, and system for thought, the cost of a thoroughly strong half-seal binding for a crown 8vo book can be reduced to about 3s. 6d. This allows of the use of the strongest leather and other sound materials. Further reductions in the price can only be the result of saving a penny here and a penny there, and unless the work is very roughly done, or the materials are inferior, 3s. or 3s. 6d. is as cheap as any odd volume can be bound to this specification. Whole binding in the same style would cost about 8s. for a crown 8vo book. In all classes of binding where there are large numbers of volumes of the same size to be bound, the work goes through much more quickly, and therefore more cheaply.

For a cheaper class of work it would be impossible to keep strictly to the specification. To save time the backs of torn sections must be overcast instead of mended, and plates pasted in instead of being guarded.

Casing versus Binding

For the cheapest work, cases are made apart from the books, and cloth is substituted for leather. The weak point in case work is the poorness of the connection between book and binding, but this can be overcome at a very slightly increased cost by sewing on tapes, and using split boards like those used for the "Library Binding." Strong buckram bindings can be made in this way for about 1s. 6d. for a crown 8vo, and if what is known as art-vellum or other cloth is used the cost would be about 3d. less.

"Rheumatic" Books

When bound books fail to open freely the binder is nearly always blamed for this serious defect, but quite often the fault lies with the choice of paper, which is habitually too thick and stiff for the size of the book. All the binder can do is to get the bend of the leaves as far to the back as possible, and to manage that as few leaves as may be are bent at each opening. If a book is mended at the back instead of overcast, it should open right back to the sewing. If the back is overcast, or "sawn in," a portion of the backs of the leaves is taken up, and so the book cannot open flat.

When possible, and it would be possible in very many cases, it is better to bind "from the sheets." Binders can get unbound copies of books from the publishers, and such books will always be sounder than copies from which the publisher's cases have been removed.

The "Art" Paper Bogey

Many modern books are printed on very poor paper. The heavily loaded "Art" paper used for printing half-tone blocks and music upon is perhaps the worst from the binder's point of view. This paper has a surface that readily flakes off, so that anything pasted to it is apt to come away, bringing the surface with it, and as folding breaks the paper at the fold, it cannot be held securely by the sewing thread. This is especially troublesome in the case of music, which must open flat and has to stand more than an ordinary amount of rough usage. Something can be done by strengthening the folds with guards, but this is an operation that adds to the cost of binding.

The following leathers are those in general use for binding books.

Sealskin. When properly prepared from the skin of

the Greenland seal this leather is most durable and strongly recommended for library work.

Pigskin. This leather is by nature somewhat firm and stiff, and is only suitable for large and heavy books. Skins which have been injured in the process of manufacture, in order to make them soft and easy to work, should not be used.

Morocco. True moroccos are prepared from goatskins. They vary in quality and price. The best "levant" moroccos are prepared from the skins of "Cape goats." Every care should be exercised in selecting suitable skins. No imitations should be used

*Fakements**

Sheepskin, known as Roan, Basil, Skiver, Persian, etc., and often artificially grained and sold as morocco.

Only specially prepared skins of mountain sheep should be used, as they provide a firmer and more durable leather than the skins of the lowland breeds. Although sheepskin is the cheapest leather used for binding, it is, if properly prepared, very serviceable. All sheepskins, however manufactured, should be correctly described.

"Persian" leather should not be used as, although at first mechanically strong, it has little durability.

Calf. Calfskin is no exception to the general rule that the skins of immature animals are soft and wanting in durability. The early calfskin that has lasted well (15th and 16th Century) shows evidence of considerable growth, and indeed much of it would now be classed as hide.

"Russia," prepared in Russia, should not be used at all, as its method of manufacture renders it a very poor binding leather.

All leathers should be free from mineral acids, and

* As the editors say, the cross head lines "are our own."—J. T.

should not be unduly stretched by the leather manufacturer or bookbinder.

A Basic Principle

It is an elementary rule of craft honesty that materials should look what they are. No leather grained to look like a skin of a better quality should be used, as, apart from the fact that such graining by hot plates is very injurious, the process is, in its nature, a fraudulent one.

Sheepskin should be, frankly, sheepskin, and not bogus morocco or pigskin.

Cloth should be, frankly, cloth, and not ape the qualities of leather.

Each material has a natural characteristic surface and texture, which a craftsman should respect and make the most of.

As to prices of good binding, the finer materials are very liable to fluctuations in price. A schedule of costs was compiled sometime ago by Mr Cockerell, which, subject to the qualification that it is not exact, is a sound guide. Of course it is to be understood that the work is for binding, not mere casing, i.e. glueing of a back on to the body of a book.

The price of fine binding can only be obtained by special estimate as the character and extent of the work varies very greatly. There may also be always little extras in the way of mending, guarding, insertion of plates, etc.

PRICES FOR LIBRARY BINDING

All sheets broken on the back made good by mending, and all plates guarded. No overcasting or pasting on. Books sewn on tapes, the ends of which are inserted into "split boards."

Books bound to this specification open freely, and the binding looks well and is very strong.

Note that there will be a small extra charge for binding books that require extra mending, or books in single sheets, or which contain a large number of plates.

Extra thick volumes will be charged as a size larger.

Sizes in inches (other sizes charged for proportionately)	Crown 8vo Inches $7\frac{1}{2} \times 5$	Royal 8vo Inches $10 \times 6\frac{1}{4}$	Demy 4to Inches 11×9	Royal 4to Inches $12\frac{1}{2} \times 10$	Folio Inches $16 \times 11\frac{3}{4}$
HALF BINDING					
Half seal, ,, morocco } gilt top * .	3/6	5/-	8/6	10/6	12/6
Half special Welsh sheep, gilt top *	3/-	4/6	6/6	8/9	10/6
WHOLE BINDING					
Whole sealskin, ,, morocco } gilt edges *	8/6	12/6	18/6	25/6	32/6
Whole special Welsh sheep, gilt edges *	6/6	8/6	13/-	16/6	18/6

* In the absence of special orders to the contrary, the edges of books will be cut.

EXTRA STRONG CHEAP BINDING

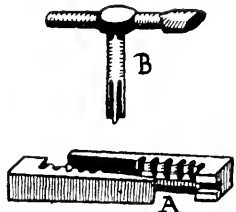
Broken sections overcast, and plates pasted in in the ordinary way, but sewing on tapes and slips inserted into split boards.

Sizes in inches (other sizes charged for proportionately)	Crown 8vo Inches $7\frac{1}{2} \times 5$	Royal 8vo Inches $10 \times 6\frac{1}{4}$	Demy 4to Inches 11×9	Royal 4to Inches $12\frac{1}{2} \times 10$	Folio Inches $16 \times 11\frac{3}{4}$
Whole buckram "Art" canvas	1/6	2/3	3/6	4/9	7/6

This is only to be considered as a rough indication of price. Cost of materials varies considerably, and all values will doubtless be altered by the war. These tables, however, will not lose their general serviceableness.

The user of printed matter for advertising will normally find that the cruder methods of thread stitching and wire stitching will serve his purpose for the ordinary run of booklets and brochures. If the book is small and at all thick, a single stitching through the centre produces a very clumsy effect. It is worth while pointing out the advertising value of having small books sewn properly in sections and cased in cloth, if the edition is not large and the constituency appealed to affluent and cultured.

[*The prices in the schedule are pre-war prices and are only given for purposes of comparison. No exact estimate of current prices is obtainable.*]



"Quoins"(A) & Key.

CHAPTER XII

THE WRITING OF ADVERTISEMENTS: "COPY"

THE chief thing to be said about copy is that it should be brief. Most proprietors of commodities over-estimate the general interest which the public takes in their wares. And naturally most copy writers are apt to exaggerate the importance of their lucubrations.

A point to be remembered by patrons is that it is easier to write long copy than short copy.

Clever copy should only be clever in its *selection*, its logical *order*, and its *brevity*, except in the comparatively rare cases where a certain whimsicality helps to get the message read. But even there brevity should be the soul of what wit is in it.

Solemnity of Proprietors

One may also register the conviction that proprietors are rather inclined to be too solemn and much too frightened of an occasional joke. They are, in fact, ridden by conventions like printers—and copy writers. The most we can hope to do for each other is occasionally to point out each other's bad failings.

Penny-a-line Copy

One amiable superstition of hirers of copy writers must be mentioned. It is that it is seemly to pay them by the thousand words! Any fool can write loose and wide; it requires skill and training to write briefly to the point. Which brevity, though it may cost more to buy, costs less to print than expensive "copy." Easy writing means dear printing.

Advertisements for the Press are naturally com-

pressed because the space is too expensive to admit of rigmaroles. Merchants would do well to exercise an economy something similar in the matter of circulars and booklets. After all it is every way better to cut the redundances out of your explanations than to cut down the estimate of the printer or substitute cheaper paper.

Coaxing versus Sand-bagging

The attitude to be adopted by anyone with anything to sell should be that nobody wants to know about it, and can only be coaxed into momentary attention by extreme skill in presentation. Illustrations have obviously more coaxing value than paragraphs of solid type. "The less copy and the more pictures the better," is a pretty sound rule—always supposing that essentials are not suppressed.

Not mere brevity will suffice, but brevity, other things equal, is a primary quality of good copy.

Perhaps the best working rule is this: an advertisement is not well written if there is any paragraph, sentence or epithet which could be cut out, and still leave the advertisement substantially as good as it was before.

It might, perhaps, be added that the English public needs more coaxing than the American to make it read an advertisement (advertisements about symptoms of diseases excepted). The American has been educated into a general interest in advertising and reads with a certain amount of critical appreciation.

Note on the Setting of Press Advertisements

A few words may be said in general on the subject of the setting of displayed press advertisements. The platitude that an advertisement is primarily designed to be read, not merely to look pretty, will carry us a good way into the subject. This is not to say absolutely that

the most legible advertisement is necessarily the best, as other secondary but important factors come in, such, for instance, as the suggestion of high quality and good taste. But it does imply that an advertisement is bad which is made in any way unreadable.

Fancy type, that is type that notably departs from the standard letter, should be avoided.

Nothing more than the headline should be set in capitals. A paragraph in capitals looks admirable, but it is difficult to read—for no more recondite reason than that the eye is more accustomed to lower case letters, which occur about 120 times as often as capitals in any normal text.

"Square setting"—that is setting which does away with the paragraph divisions—is to be avoided. It is a fault that artists designing type matter are prone to commit. They naturally are inclined to see their type panels merely or chiefly as decorative material. Paragraph divisions make for legibility.

Type should not be mixed. This is ugly and distracting. It should not be crowded. Plenty of white space should be allowed. The mood in which to design the setting of an advertisement is a mood which realizes that nobody wants to read the confounded thing, and must be coaxed in every sort of way; that the attention of the possible reader is distracted in a thousand ways by the other reading matter and the other advertisements. This getting attention is a highly competitive business. The drawing, where it is not explanatory, is chiefly used as a "pointer," a flag to arrest attention.

To take care that the first few words of the advertisement are arresting, and to set them in a larger type and a wider measure than what follows is a good device.

CHAPTER XIII

OF OCCASIONAL PRINTING FOR PRIVATE USE

I MUST admit the reasonably soft impeachment that there was at the back of my mind in the production of this book of information for the users of printing the hope of raising some sort of enthusiasm for a fine craft, and of introducing some of those who came with mere, though quite legitimate, thoughts of business, to go a little further and do something for the raising of the general standard of taste even if there were "no money in it" for them. (As a matter of fact there is, but let that pass.)

Printing offers to those who have artistic perceptions, but no actual trained skill, a medium of expression. Anyone with good judgement, taste, and a certain faculty of design, however elementary, can impress his personality upon the printed matter he uses. He can do this in his business printing and he can do it even more obviously in the occasional printing he uses in private life.

There can be no sort of necessity to use the forms, blanks, stereotyped cards (practically, in fact, domestic circulars) which people use as the medium of expression of their greetings to one another on the occasions of Christmas and Easter, of marriage days and birthdays, and so forth.

It is astonishing what little sensitiveness there is in the matter of printing, even in people who have quite a distinguished standard of taste in, say, house decoration.

Take, for instance, the notices in public places. The writer remembers some years ago being so appalled by the deplorable notices stuck all over the chief features

inside Westminster Abbey, that he went to the Dean and begged that the Arden Press, which he was then serving in its early, obscure days, might be allowed to do at its own charges announcements more worthy of this historical building; an offer which the Dean, in gratitude not mortification, only refused because he had already accepted an offer from an amateur source to re-write them. On the other hand the notices in the Victoria and Albert Museum, South Kensington, are quite admirable examples of how this sort of thing should be done.

Anyone may be in the position of controlling the issue of printed matter for this or that body or function, and it seems to the writer singularly important that the numbers of those who insist upon its being done well instead of badly should be increased. By "well," I by no means necessarily mean more expensively.

To return to what may be called domestic occasional printing. One sometimes happens to be interested in some feature of one's neighbourhood, the village cross or pump, and to acquire exclusive information about it. Why let it remain exclusive? Why not a little book about it? And if a book, why not a comely one?

Or there are family memoirs and memories to be preserved. Why not print them decorously for your friends and children?

Or in early youth one has indiscreetly blossomed into verse. It is not a crime to enshrine what survives one's mature judgement in a pleasant little book.

Or one has talented children who show a precocious gift of literary expression. What better toy for them than to allow them to publish a tiny quarterly journal? And, by the way, what better training and recreation for them than to learn, at quite an early age, some of the principles that control the fair decoration and artistic production of books?

Men of business who must needs use printing little know what they miss by merely considering it an inevitable expense connected with salesmanship. Let me urge them to make a hobby of necessity. My own first connection with printing was an accident, with fine printing a happy chance. There was a time when I should have been able to look upon the lettering on page 53 positively without blushing. That this should be seems to me now entirely deplorable, and I risk the inference of impertinence of this more or less autobiographical paragraph in order to save the reader from so dismal a fate. As it is I owe countless happy and crowded hours of a not unamusing life to my connection with what I can't help feeling to be, perhaps, after house making, the noblest and most essential of the crafts. Perhaps to be quite fair we ought to put cooking and tailoring before it. But I'll make no further concessions. And I always resent the lack of appreciation which the normal "customer" shows of the very high skill and intelligence of the compositor and the machineman in a modern press, of the clear-headedness and dexterity of the one, the resourcefulness and miraculous precision of the other.

The reader hasn't grasped the essential message of this book if he doesn't understand that as a user of printing it is up to him as part of his payment for services rendered to help raise the standard of the craft. He can do so by appreciation of good work, by condemnation of bad, and generally by intelligent criticism and sympathy.

CHAPTER XIV

COSTS: REAL AND NOMINAL

THE question of the cost of a given piece of printing is generally considered the most important factor, especially by the less experienced.

But surely it is obvious that printed matter, designed for the spread of business or of ideas, should not be estimated in terms of the cost, but of the effect.

There is a distinction famous in Economics between real and nominal wages. If my wages go up 20 per cent and my living costs me 30 per cent more, my real wages palpably have gone down 10 per cent.

And so, analogously, of printing. We will suppose that for £30 I buy 10,000 booklets; that is, I buy at the rate of £3 per thousand.

Assume that 1,500 of them get effective attention, and that the rest reach the waste-paper basket completely ignored. I am really paying £20 per thousand. (Here, of course, we put aside for the moment the question of actual sales, and fix upon the primary objective of any announcement, that it should be really "attended to.")

But if I pay £35 for 10,000 announcements, and 2,500 of them get effective attention, I am obviously *really* only paying at the rate of £14 per thousand.

The *nominal* costs in these two transactions are £3 and £3 10s. per thousand. The *real* costs are £20 and £14 per thousand respectively. That is to say, the more expensive thing is here not merely relatively but actually the cheaper.

And it is by no means a trick of advocacy on behalf of the printer that represents an extra 10 or 15 per cent expenditure as capable of producing a 40 or 50 per cent increase of attention-value.

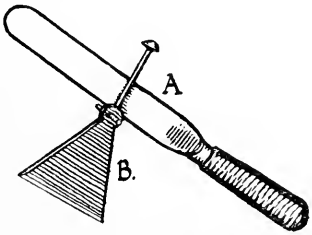
It is only necessary to analyse one's own attitude towards the printed matter with which one is bombarded. There comes along in a morning's mail some little piece of printing on which much care has been expended on general design, particular illustration, written appeal, careful addressing, and so forth. It stands out from all the rest. One puts it aside or pockets it for careful perusal.

Imagine this process repeated in as many, or nearly as many, houses as the appeal in question reaches, and you will find the above statement no more than the platitude that it in fact is—a platitude the recognition of which would save a great deal of money wasted on bad printing. Always print well enough to *command* attention.

A similar argument applies to the treatment of expensive newspaper space. Considerable monies are expended on the space, small monies are grudged on the effective filling of that space—especially by the inexperienced.

As has been said elsewhere in this manual, compression and selection may give better material, better work and greater distinction of effect, at no greater actual or nominal cost, and if this argument is true, at immeasurably less real cost than haphazard, wordy, ill-decorated material.

The key to the situation is in this formula: costs must be estimated in terms of *effect.*



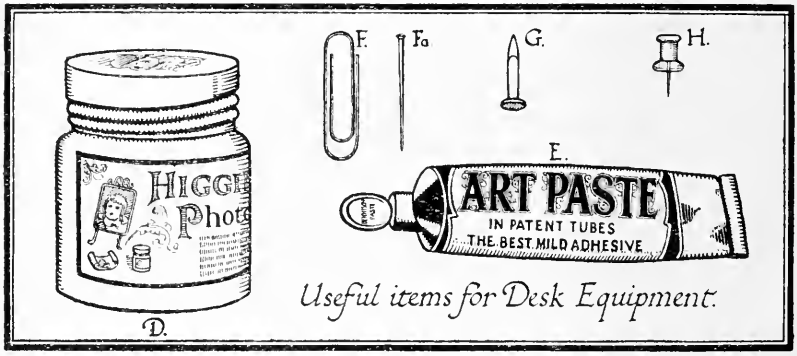
Ink-knife (*A*) *& Inkslice* (*B*)

CHAPTER XV

OF DESK EQUIPMENT

EVERYBODY works in his own way, but perhaps the following results of experience may be useful to the amateur.

They represent survivals of countless experiments, and my rejected apparatus would fill a small museum. American ingenuity tempts us to overdo our office and desk equipment, and some business men are enslaved by machinery. But they are less common than the other kind, who seem not to be aware that certain problems of daily occurrence and common daily vexation have been solved.



Useful items for Desk Equipment.

As a concession to the conservatives I will admit that Fig. Fa represents after all about the most useful of the many devices for fastening papers together. It is a discovery parallel to that wherein a plain sheet of paper containing one's personal agenda with the tackled items crossed through and the unfinished re-written on a fresh sheet when the first is full, is to be the most satisfactory of memoranda-devices. The business-system manufacturers may not like it, but it's the simple truth that one can go a long way with a box of common pins and some plain quarto sheets of paper.

Next best to the pin is the wire clip made in various forms (Fig. F). For a considerable number of papers the brass paper clip (Fig. G) is probably the handiest, the kind, however, that has one leg longer than the other and pointed is the best.

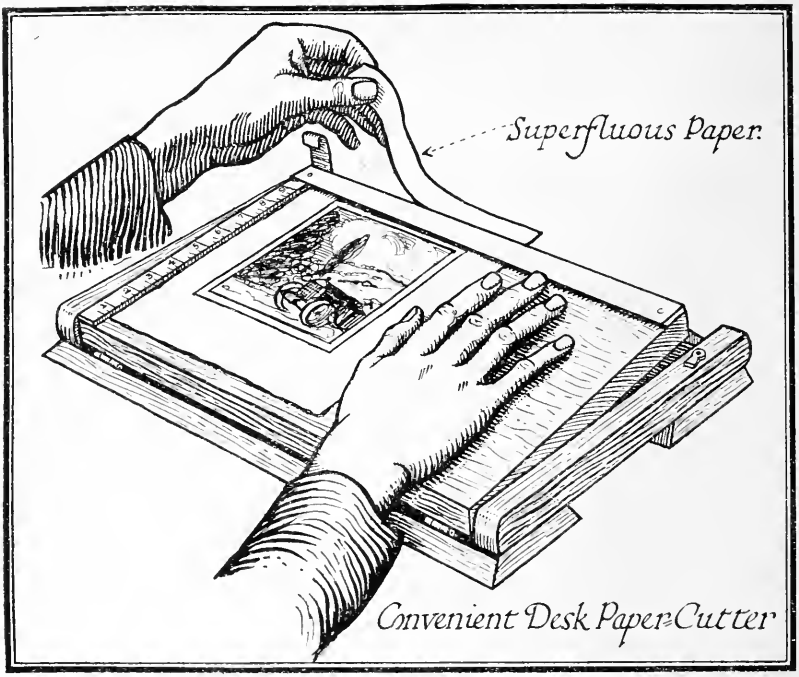
One of the neatest, quickest, and handiest forms of fastening together anything from 2 to 6 sheets of paper is the patent clipless paper fastener, which cuts a triangular tongue in the papers, and folds the ends through a small slit at one operation—invaluable for such business men as sometimes do something for themselves.

The user of printing for business often needs to stick things together. For the principal's desk (as distinguished from general office use) the main point to be considered will be convenience and cleanliness rather than cheapness.

Higgins photo-mount is the most satisfactory of the pastes and the finger not a bad "brush" to use with it. A paste put up into tubes by Dennison Walker with a convenient stopper is also very handy, but the small size should be bought, as only a Super-man could squeeze the paste out of the larger size. The flat top acts as a brush, and it is extraordinarily quick and clean to handle. These makers also put up a paste in a glass jar with a division in which the brush is always kept in a little water—a most excellent device.

The infuriating and hampering *débris* that collects about the neck of the ordinary paste pot, unless it is in constant use, puts it out of court for occasional desk use. Where neat work is required, such as the careful mounting of a photograph or print, and where it is only necessary to paste the edge or edges, the following method will be found useful:—

Put the print face downwards on a piece of waste paper, lay a straight edged slip of waste paper over it so as to expose about $\frac{1}{8}$ of an inch of the print; pass the



paste brush across the exposed edge so as to cover it with an even layer of paste, the excess of paste being deposited on the two waste pieces. Mounting prints in this way tends to prevent "cockling," which can further be prevented by drying under pressure, if possible, with a tissue or soft blotting paper covering the print.

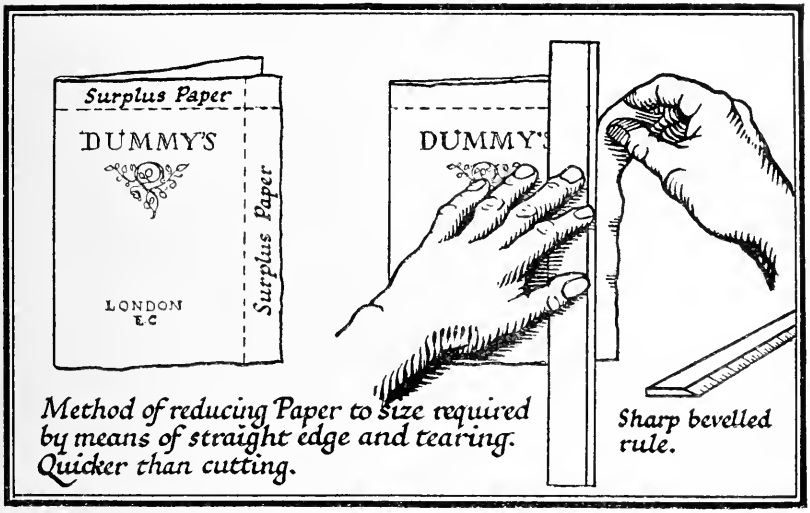
Another good method is to lay the print to be pasted back upwards upon a board or book projecting just so far as the width of paste-edging intended. It will be found that by brushing along this edge, always working a little outwards from the book, a fine even line of paste can be made without soiling the book or anything else. Pasted work should always be dried under pressure (a heavy book will be sufficient) to prevent its cockling.

For cutting, a pair of well-finished scissors, some nine inches in length, is indispensable. The use of a

bevelled steel rule makes a better rough cutter of paper than either knife or scissors.

Several sheets can be cut evenly at a time; a feat quite impossible for scissors.

For much accurate work the hinged print trimmer,

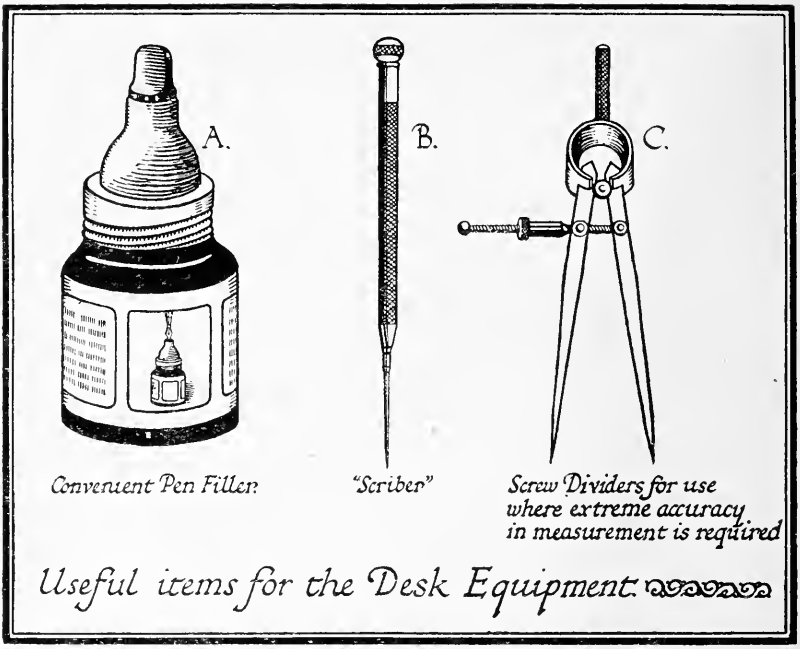


such as photographers use, is very handy. It has a graduated rule at the side, and obviously cardboard gauges can be fixed with drawing pins if a certain number of papers or thin cards have to be cut to size.

A handy and economical compass for measurement is that shown in Fig. C overleaf. It has a spring and screw attachment which is indispensable for the fine measurements necessary for making up book work.

The above are set forth by the writer as the fittest survivals of innumerable contrivances which have been tested by him in the eager pursuit of an amiable hobby.

For those to whom it is a matter of satisfaction to have an instrument, comely to look at, pleasant to handle and well adapted to its use, the scriber, made by the Starrett Co., is to be commended (Fig. B). It is most useful for piercing out the type panel spaces in



Useful items for the Desk Equipment

dummies; and, of course, it makes also an effective piercer such as is necessary for use with the Fig. 3 clip if any considerable number of papers are to be fastened.

But I can't deny that our old friend the common pin will do at a push. Still, it needs a hard push and hurts the fingers: so I commend the apter tool.

As a fountain pen filler, for those who use fountain pens without suction machinery inside them, the Swan filler (Fig. A) made by Mabie, Todd & Co., absolutely solves an otherwise vexatious problem. The glass stopper A is removed; the point of the pen inserted firmly; the bottle, with the pen so fixed, reversed; and the ink pumped into the pen by a simple up and down motion. This cleans as well as fills the pen.*

*I suppose in these days of indirect advertisements it will be as well if I point out that these recommendations were made by me without even the knowledge of the makers concerned. Professionals will understand this from the slenderness of the list. Amateurs must please take my word for it.—J. T.

A NOTE ON TELEPHONE TROUBLE

Perhaps the most infuriating single item of the desk equipment is the telephone. The following suggestions are hazarded in the hope that they may prove of service.

Besides the causes of telephone trouble for which the authorities are responsible and which they alone can cure, there are points worth the attention of every business man.

Every principal ought to see that the subordinates who attend to the telephone are thoroughly well instructed in their duties: this especially in the case of private branch exchanges where the manipulation of the switch-board is not a particularly simple matter. Telephone authorities are always glad to send instructors to superintend or coach private operators.

The principal ought from time to time to inquire personally into the working of his telephone. The authorities will be willing at his request to make supervising tests of its working. He will do well also to hear the experience of customers, etc., who ring him up.

There are certain "snags" in telephone practice which should be avoided.

Don't say "hallo," unnecessarily; it is a word to be reserved for trouble. There is a definite etiquette which when observed smooths away no end of telephone trouble and prevents inordinate waste of time.

The subscriber who is rung up ought to announce himself without waiting to be asked. The subscriber ringing up should then announce himself or his firm. There is no need for "Hallo's!" or "Who are you's?" or "Who's there?" or the usual insane procedure which precedes nine out of ten telephone conversations.

It is the consonants which are difficult to hear. A very precise, staccato utterance is desirable.

When cut off it should be left to the ringer-up to re-establish connexion; if both try, confusion results.

It helps the operator at Exchange if, when asking for a number, the subscriber mentions the Exchange first, the number afterwards: Holborn nine-four-nine-oh, not nine-four-nine-ought Holborn. Your telephone number should never be printed on stationery the wrong way. That helps to keep alive a bad practice.

Be courteous to the operator. Honestly she is doing her best—if for no better reason than that to make mistakes gives her more trouble—not less. "Think in aggregates" —that is consider how little pieces of ignorance, careless departure from routine practices, little rudenesses (or big) and unreasonablenesses multiplied by the enormous number of subscribers, can clog that complex machine the telephone.

In dictating telegrams or telephoning other important matter an enormous amount of time is saved and mistakes avoided by using the reference words commonly employed by the telephone operators. This list appears to have grown up on no very logical plan, but it is simpler to accept it as it is than to reform it in the interests of symmetry.

The idea is, of course, that if the operator fails to hear whether it is B or D or P, "B for Brother," "D for Dover," "P for Peter" will settle the matter.

A	for Apple	N	for November
B	„ Brother	O	„ October
C	„ Charlie	P	„ Peter
D	„ Dover	Q	„ Queen
E	„ Eastern	R	„ Robert
F	„ Father	S	„ Sugar
G	„ George	T	„ Thomas
H	„ Harry	U	„ Uncle
I	„ India	V	„ Victoria
J	„ Jack	W	„ Wednesday
K	„ King	X	„ Xmas
L	„ London	Y	„ Yellow
M	„ Mother	Z	„ Zebra

SOME USEFUL ABBREVIATIONS.

ad lib.: At pleasure.
e.g. (exempli gratia) } For example.
v.g. (verbi gratia) }
i.e. (id est): That is.
et seq.: And following [e.g. "p. 29 et seq."].
scil. (scilicet) } Namely.
viz. (videlicet) }
O.P.: Out of print.
R.P.: Reprint.
R/B: Red and Black.

For Reference in Books.

cf. (confer): Compare.
q.v. (quod vide): Which see.
ib. or ibid.: In the same place.
passim: Frequent throughout.

In Newspaper Work.

s/c = single column.
d/c = double column.

Note.—O.K., generally attributed as 'the initials of "orl korrect" as used by a famous lumber-man,' is now so universally accepted as a sign for "Go ahead, all is in order," that despite its deplorably unacademic origin it may well be accepted and used.

GENERAL GLOSSARY

Ampersand: the abbreviation for "and"=&.

Antique: applied to rough surfaced paper, generally of the cheaper kinds.

Arabic Numbers: ordinary numerals, 2, 3, 4, as distinguished from Roman II, III, IV.

Ascending Letters: lower case letters with upstrokes as b, d, f, h, k.

Bank Paper: a thin, tough writing paper.

Bed: the flat part of the press upon which the forme is placed.

Black Letter: Old English, Gothic or Ecclesiastical type.

Bleed: used of trimming that cuts into the printed matter.

Blind Tooling: lettering or ornament impressed on book covers without gilding or colouring.

Block (or Cut): general term covering line blocks, half-tone blocks, woodcuts, electrotypes and stereotypes.

Boards: applied to heavy kinds of cardboard. A book with stiff sides covered with paper is said to be bound in paper boards.

Body: base or shank of the type on which the face is raised in relief. See diagram, page 52.

Box: type in an enclosing frame of rules is said to be boxed.

Brass Rule: strips of brass type-high with printing surface. Used for straight lines, columns, borders.

Broadside: a sheet printed one side only.

Buckram: a book cover cloth of linen with pleasantly coarse texture; very serviceable.

Burnish: in half-tone engraving used in process of flattening the tops of the dot cones and so producing a darker tone.

Calender: to give paper a smooth surface by rolling it. (Cf. Cylinder.)

Case: a cover made apart from the book.

Case Binding: a hasty and usual method of binding books by the glueing on of a case separately made.

Chase: an iron frame in which type and blocks are locked for press. See page 20.

Clean Proof: A proof in which there are few corrections. (Opp. to dirty proof.)

Coated Paper: paper with clay surface, commonly (and foolishly) called "art" paper, for printing fine half-tone blocks.

Collotype: a quasi-intaglio photo-mechanical non-screen half-tone process, depending, however, also partly on the lithographic principle. The main factor is the action of light on bichromatised gelatine. Where the light has acted on the plate the gelatine hardens; the non-hardened parts retain and absorb water. When the plate is inked, only the hardened parts take the ink; the soft or watery parts repel it. Re-

ticulations of the film, finer or coarser according as the action of the light is less or greater, provide the "tooth" and ensure the reproduction of the half-tones without the use of a screen.

Colophon: printer's device or note relating to circumstances of production put at the end of book.

Composition: type setting.

Condensed Letter: narrow, or elongated type.

Copper-plate: an intaglio process of engraving by cutting or biting into copper; inking and wiping the plate; and printing with considerable pressure: includes mezzotint, etching, aquatint.

Copy: applied to MS., typescript, etc., from which the printer sets up, or drawings, photographs, etc., which the engraver reproduces.

Cylinder Press: a press with a flat-bed for the *forme* and a cylinder which revolves and impresses the paper on the type.

Dandy Roll: in machine-made paper a roll or cylinder of wire gauze which impresses the water mark.

Deckle-edges: uneven edges of *hand-made* and *mould-made* paper. Faked deckle-edges are manipulated on poorer paper made in the roll. A bad practice.

Descending Letters: lower case letters that extend below the line, as g, j, p, q, y.

Die-stamping: an *intaglio* process of printing raised letters either coloured or blind (no colour) as in die stamped stationery. See *Embossing*.

Display: used in opposition to "straight setting" of type arranged for display or advertising purposes.

Distribute ("Diss"): to break up forme and put back type into its proper cases.

Dummy: The rough book showing size and general arrangement of the contemplated book or booklet.

Duodecimo ("twelvemo"): a sheet of book paper folded to make 12 leaves (24 pages) gives a 12mo.

Electrotype ("Electro"): a fine replica of type, plates, etc., formed by covering wax impression with galvanic coating of copper backed with metal, distinguished from *stereotype*, which is a mere mechanical casting in metal, not capable of such absolute exactness.

Em: (1) Printers' general measure $= \frac{1}{6}$ of an inch.
(2) The square of any type *body*. Roughly the space taken by the "m" of the *fount*.

Em quadrat ("quad"): an em quad forms a space the width of an M. One em quad = two ens.

Embossing: the raising of letters already printed on card or paper by an uninked block. Distinguished from die stamping (where the die may carry ink), which is a more exact and expensive process.

Etching (root, *eat*): (1) an *intaglio* process of engraving on copper or zinc, the design being cut or scratched through a protecting smoked and varnished layer, and then bitten in with acid. (2) In photo-mechanical processes the general term referring to the action of the corroding acids.

Flat pull or ROUGH PULL: the proof taken without *under-* or *over-lay*.

Flong: a kind of papier-maché (plastic and fire resisting) for making the moulds for *stereotypes*.

Folio: (1) The sheet folded once gives 4 folio pages or two leaves.
(2) A page number (e.g., the 148 on this page).

Forel (or **forrel**): a coarser parchment showing attractive grain and discolorations. Used for binding.

Forme: type, blocks, etc., locked in the *chase* ready for press.

Fount: a fount of type is a full set of types. Caslon O.F., Plantin, Westminster, Decoy are different founts of type.

French Joints: in a French joint the board is placed a little away from the joint of the book, forming a trough between the back of the board and the edge of the back of the book.

Full face: a letter without beard —titling letter.

Furniture: material (wood or metal) for making margins or large spaces in the *forme*.

Galley: shallow tray of wood or metal to take the set-up type before paging. See p. 19.

Galley proof (or slip proof): rough proof taken from type on the galley before paging.

Guards: strips of thin paper or linen, attached to the backs of plates or sections. Any material used for strengthening a weak fold, or for bulking out the backs of books, such as scrap books.

Half Binding: a book with leather back and corners, with a normal amount of leather showing on the side, about an inch wide on a "crown 8vo" book, and stiff sides covered with cloth or paper, e.g., half-morocco, half-calf.

Half-tone: monochrome or colour plates photo-mechanically engraved with the aid of a ruled screen, giving tone values, not mere black-and-white contrasts. (Cf. *Line Block.*)

Hand Press: the primitive form of printing press still used for proving and for the finest work of the private presses (Kelmscott, Doves, Ashendene).

Hanging par (hanging *indention*): where the first line of matter is wider and hangs over succeeding lines, as in this par.

Imposing stone: flat stone or steel surface on which formes are arranged and locked for press.

Imposition: arrangement of the pages in the *chase* so that they fall in the proper *register*.

Indent: to put a quad or space at the beginning of a paragraph.

Intaglio: engraving or printing processes where the ink is laid in cuts or scratches and hollows on the plate, as in copperplate, etching, steel engraving, photogravure, mezzotint. Opposed to relief-printing, in which the printing surface is raised. The plate is then wiped and the print is pulled under great pressure which forces the paper into the lines and hollows of the plate. You get not merely different tones of ink but actually different depths. The plate carries and actually transfers more ink than in any relief or flat surface process.

Kerned letters: kern, the overhanging part of a letter in some founts of type, especially old face and italics, e.g., Qu.

Laid Paper: paper which shows faint parallel markings from the pressure of the wires of the tray or roller used in manufacture. Opposed to wove, e.g., cream-laid, cream-woven.

Lay-out: a rough plan or design of a book, advertisement or other piece of printed matter.

Leaders: (pronounced *leed*-ers) dots or dashes set in lines to carry the eye to figures, etc., e.g., in contents tables.

Leads: (pronounced *leds*) metal strips of varying thickness, less than type-high, to separate the lines of type, etc.

Line Block: a photo-mechanical process which transfers a (generally reduced) copy of a line (not tone or "wash" drawings) to a prepared zinc or, for better work, copper plate, acid biting away the blank parts.

Linotype: type-setting machine, with caster and keyboard combined. Sets type in lines; casts in lines or "slugs" from a collected line of matrices; then distributes the matrices.

Lithograph: a process of surface printing (distinguished from relief and *intaglio*) which depends on the mutual repulsion of grease and water. An absorbent stone or porous-surfaced zinc or aluminium plate on to which a design is transferred in reverse, in greasy ink; is carefully washed with water; is then inked, the watered or blank parts repelling the ink, only the design (the greasy parts) taking it up. A copy is then printed, and the watering and inking processes repeated.

Lower Case: Refers to the small letters which are in the case nearest to the compositor, the capitals being in an upper case of the rack.

Machine-proof: proof of matter of which the formes are on machine. An expensive proof, because machines, nicely adjusted, are kept waiting out of action.

Make-up: (1) the make-up or "*lay-out*" of the book shows the general arrangement of pages, illustrations, etc.; (2) also refers to making-up the set type into pages, etc., on the stone.

Making-ready: the important, immediate preparation for printing by *overlay* and *underlay*, and the exact adjustment of gauges, etc., on machine.

Measure: the width of a page of type. Printers reckon in Pica ems; amateurs may more conveniently and quite satisfactorily reckon in inches.

Mezzotint: a process of *intaglio* engraving on a roughened copper plate, scraped and burnished.

Monotype: a machine comprising separate caster and keyboard; sets type in single characters. Keyboard operates mechanism which punches a paper spool; spool transferred to caster operates the casting pneumatically.

Mould-made Paper: fine paper, made not actually by hand, but by a machine process akin, working the pulp in a tray piece by piece, not in the roll. Raw material (rags) and general quality may be as good as hand-made. The finished product is not so tough.

Octavo: sheet of paper folded in eight leaves (16 pages) gives 8vo size.

Off-set: (1) the unintended transfer of ink or colour to another sheet of paper; (2) a process of printing by the transference of the impression from type or plate to paper or other material via a rubber or resilient cylinder.

Over-Casting: sewing over the back of sections.

Overlay: is the sheet on the impression cylinder which is thickened or thinned by adding or cutting away or paring down according to need of the subject after the work has been levelled as far as possible by underlay.

Parchment: a prepared sheepskin.

Perfecting: a perfecting machine has two impression cylinders and prints both sides of sheet at one operation.

Photogravure: a photographic *intaglio* process of engraving on a plate on which a grain of bitumen dust is bitten into the plate so as to form a "tooth" to hold the ink. The plate is then covered with a carbon negative, and this is etched through and into the grain with acid. The plate is often carefully worked upon by hand. Machine photogravure (or roto gravure) uses a mechanical screen to act as a "railway" to the wiping knife in place of the roughened surface, and prints from copper cylinders or flat copper plates.

Pica: (1) old name of size of type equal to 12 pt.; (2) printer's standard of measurement: a Pica is $\frac{1}{6}$ in.

Platen Press: press in which both paper and forme are flat.

Point: unit of type measurement approximately $= \frac{1}{72}$ in.

Preliminary: refers to all the matter, half title, title, preface, contents, introduction, copyright notes, etc., coming before main text of book.

Quadrats ("quads"): large metal blanks to fill up short lines.

Quarto: a sheet of paper folded to make four leaves (8 pages) gives quarto.

Quire: (1) of writing paper, twenty-four sheets; of newspapers, twenty-six copies.
(2) Section of a *ream* of paper; 24 sheets.

"**In Quires**": used of a book unbound in sheets.

Quoins: wedges of wood or metal to tighten up formes.

Ream: standard parcel of paper, 480 sheets normal; 516 "perfect"; newspaper, 500.

Register: (1) to impose type pages so that they back exactly; (2) to arrange for colour printing so that the colours fall into place with perfect accuracy; (3) (at machine) to adjust the forme, guides, gauges, etc.

Relief Printing: printing from raised surface, type or blocks; distinguished from *intaglio*, and from *lithographic* or planographic (flat surface) printing.

Roman: the normal form of type as distinguished from italic; and from fancy types.

Roman Vellum: a fine quality of sheep- or lamb-skin.

Rotary Press: printing press in which both printing surface (cast cylindrical plates) and paper (fed from a roll) revolve.

Routing (pronounced "rowt"): removing superfluous metal from engraved plates.

Rule: strip of metal, type-high, for printing borders, lines, etc. Distinguished from *leads* used for spacing.

Score: to crease heavy paper or light board to make it fold readily.

Screen: the ruled glass screen used in photo-mechanical, half-tone engraving processes. Its close or open ruling determines the fineness or coarseness of the plate.

Serif: the fine lines at the top and bottom of a letter, inclined to be rather straight and mechanical in modern types, slanted and freer in Old Face and Old Style. **Sans-serif:** a letter **without SERIFS.**

Shoulder: the blank space above and below the face of a letter on a type.

Shoulder Notes: marginal notes at top corner of page or "par."

Side Notes: marginal notes.

Sixteenmo: a sheet folded to make sixteen leaves (32 pages) is 16mo.

Slips: the ends of the cord or tapes on which a book is sewn.

Solid Matter: is type set up without leads, distinguished from leaded matter. The text of page 26 is thin leaded (1st third) as is the text throughout this book; thick leaded (2nd third); and solid (3rd third).

Split boards: originally boards split to receive the slips, now generally two boards glued together with the slips between them.

Stabbing: a method of wire or thread stitching through the side of single leaves that cannot easily be sewn. A desperate method, as the book won't open flat.

Steel Engraving: an *intaglio* process of engraving on steel, identical with *copperplate* in printing method.

Stereotype: a replica cast in metal from type and plates. Cast also in semi-cylindrical form for *rotary* machines. Moulds made of plaster, clay, papier-maché (*flong*).

Stick: small hand metal frame in which compositor sets type.

Stipple: shading by dots instead of lines.

Super-calendered Paper: paper highly glazed by rolling between cylinders (calenders).

Swash Letters: the flourished italics of old face letters, such as Caslon and earlier founts: *N T M*.

Three-quarter Binding: similar to half-binding, but with more leather showing.

Quarter-binding is half-binding with very narrow leather on the side, and either no leather corners or very small ones.

Turned Sorts: letters placed deliberately face downwards so that the black "foot" prints, to indicate where letters of the proper fount, for the present run short, will be needed.

Twelvemo: paper folded into twelve leaves (24 pages) gives 12mo.

Twenty-fourmo: a sheet folded to make twenty-four leaves (48 pp.).

Upper-case: capital letters stored in the upper case of the compositor's rack.

Vellum: originally prepared calf skin. Applied to good prepared skin.

Wove Papers: paper which shows no wire marks. See *Laid*.

SUPPLEMENTARY TABLES & SUNDRY CALCULATIONS

NOTE ON TABLE OVERLEAF

As all reams of paper are found to vary slightly as between the largest and the smallest sheet, and as ream edges are often slightly soiled or bruised in transit or packing, it is generally found expedient to trim round before subdividing.

The following table may be regarded as standard.

CHART OF PAPER SIZES (TRIMMED)

Paper Size	Sheet or broadside	Quarto	Octavo	16mo
Pott . . .	$12\frac{1}{4} \times 14\frac{3}{4}$	$7\frac{3}{8} \times 6\frac{1}{8}$	$6\frac{1}{8} \times 3\frac{11}{16}$	$3\frac{11}{16} \times 3\frac{1}{16}$
F'cap . . .	$13\frac{1}{4} \times 16\frac{3}{4}$	$8\frac{3}{8} \times 6\frac{5}{8}$	$6\frac{5}{8} \times 4\frac{3}{16}$	$4\frac{3}{16} \times 3\frac{5}{16}$
Crown . .	$14\frac{3}{4} \times 19\frac{3}{4}$	$9\frac{7}{8} \times 7\frac{3}{8}$	$7\frac{3}{8} \times 4\frac{15}{16}$	$4\frac{15}{16} \times 3\frac{11}{16}$
Large Post .	$16\frac{1}{4} \times 20\frac{3}{4}$	$10\frac{3}{8} \times 8\frac{1}{8}$	$8\frac{1}{8} \times 5\frac{3}{16}$	$5\frac{3}{16} \times 4\frac{1}{16}$
Demy . . .	$17\frac{1}{4} \times 22\frac{1}{4}$	$11\frac{1}{8} \times 8\frac{5}{8}$	$8\frac{5}{8} \times 5\frac{9}{16}$	$5\frac{9}{16} \times 4\frac{5}{16}$
Medium . .	$17\frac{3}{4} \times 22\frac{3}{4}$	$11\frac{3}{8} \times 8\frac{7}{8}$	$8\frac{7}{8} \times 5\frac{11}{16}$	$5\frac{11}{16} \times 4\frac{7}{16}$
Royal . . .	$19\frac{3}{4} \times 24\frac{3}{4}$	$12\frac{3}{8} \times 9\frac{7}{8}$	$9\frac{7}{8} \times 6\frac{3}{16}$	$6\frac{3}{16} \times 4\frac{15}{16}$
S. Royal . .	$20\frac{1}{4} \times 27\frac{1}{4}$	$13\frac{5}{8} \times 10\frac{1}{8}$	$10\frac{1}{8} \times 6\frac{13}{16}$	$6\frac{13}{16} \times 5\frac{1}{16}$
Imperial . .	$21\frac{3}{4} \times 29\frac{3}{4}$	$14\frac{7}{8} \times 10\frac{7}{8}$	$10\frac{7}{8} \times 7\frac{7}{16}$	$7\frac{7}{16} \times 5\frac{7}{16}$

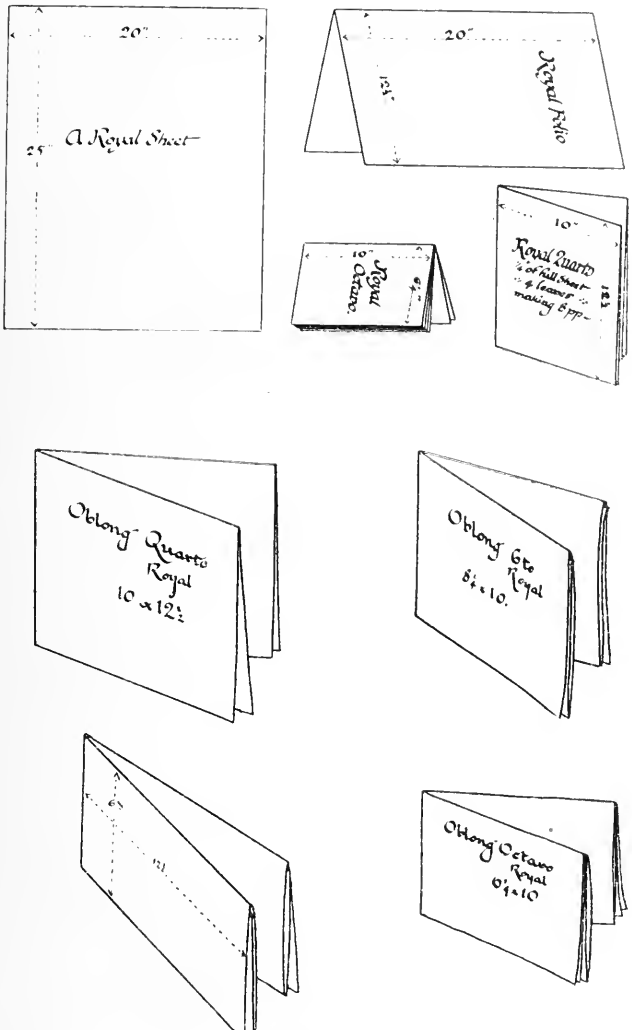
Oblong Subdivisions of Paper

Paper Size	4to	6to*	8vo
F'cap	$6\frac{3}{4} \times 8\frac{1}{2}$	$5\frac{5}{8} \times 6\frac{3}{4}$	$4\frac{1}{4} \times 6\frac{3}{4}$
Crown	$7\frac{1}{2} \times 10$	$6\frac{5}{8} \times 7\frac{1}{2}$	$5 \times 7\frac{1}{2}$
Large Post	$8\frac{1}{4} \times 10\frac{1}{2}$	$7 \times 8\frac{1}{4}$	$5\frac{1}{4} \times 8\frac{1}{4}$
Demy	$8\frac{3}{4} \times 11\frac{1}{4}$	$7\frac{1}{2} \times 8\frac{3}{4}$	$5\frac{5}{8} \times 8\frac{3}{4}$
Medium	$9 \times 11\frac{1}{2}$	$7\frac{5}{8} \times 9$	$5\frac{3}{4} \times 9$
Royal	$10 \times 12\frac{1}{2}$	$8\frac{1}{4} \times 10$	$6\frac{1}{4} \times 10$
Super Royal	$10\frac{1}{4} \times 13\frac{3}{4}$	$9\frac{1}{8} \times 10\frac{1}{4}$	$6\frac{7}{8} \times 10\frac{1}{4}$
Imperial	11×15	10×11	$7\frac{1}{2} \times 11$

* The 6to shape for folding up must be oblong.

This list of trimmed sizes enables one to see at a glance the largest available page in any given folding.

Various Folds of Printing Paper



STANDARD SIZES OF WRITING PAPERS.

	Inches.		Inches.
Pott	15 × 12½	Elephant	28 × 23
Foolscap	16½ × 13¼	Imperial	30 × 22
Pinched Post	18½ × 14½	Colombier	34½ × 23½
Post	19 × 15¼	Atlas	34 × 26
Demy	20 × 15½	Double Elephant	40 × 26¾
Copy	20 × 16	Antiquarian	53 × 31
Large Post	21 × 16½	Emperor	72 × 48
Sheet and ⅓ F'cap	22 × 13¼	Double F'cap	26½ × 16½
,, ½ ,,	24¾ × 13¼	,, Post	30½ × 19
Medium	22 × 17½	,, Large Post	33 × 21
Royal	24 × 19	,, Demy	31 × 20
Super Royal	27 × 19		

STANDARD SIZES OF NOTE PAPERS.

	Inches.		Inches.
Queens	3½ × 5⅜	Medium 4to	8⅜ × 10⅜
Albert	3⅞ × 6	Medium 8vo	5⅜ × 8⅜
Foolscap 4to	6⅜ × 8	Demy 4to	7⅜ × 9⅜
Post 8vo	4½ × 7⅛	Demy 8vo	4¾ × 7¼
Large Post 8vo	5 × 8	Foolscap Folio	8 × 12¾

STANDARD SIZES OF CARDS.

	Inches.		Inches.
Thirds	3 × 1½	Large Court	4⅞ × 4
Extra Thirds	3 × 1⅞	Double Small	4¾ × 3⅝
Town size	3 × 2	,, Large	6 × 4½
Reduced Small	3⅝ × 2⅛	Cabinet	6½ × 4¼
Small	2⅜ × 3⅝	Quad Small	7¼ × 4¾
Carte de Visite	4⅛ × 2½	,, Large	9 × 6
Large	4½ × 3	Post Cards: Official	5½ × 3½
Correspondence	4½ × 3½	,, Court	4½ × 3½

STANDARD SIZES OF ENVELOPES.

	Inches.		Inches.
No. 6	$3\frac{1}{8} \times 5\frac{3}{8}$	Large Feap	9×4
Albert	$3\frac{1}{4} \times 4\frac{1}{4}$	Extra Feap	$9\frac{1}{2} \times 4\frac{1}{4}$
Duchess	$3\frac{1}{8} \times 4\frac{5}{8}$	Draft	$10\frac{5}{8} \times 4\frac{5}{8}$
Duke	$3\frac{3}{4} \times 5\frac{5}{8}$	Prospectus	11×5
No. 7 or Business	$3\frac{1}{2} \times 5\frac{3}{4}$	Large Draft	$11\frac{1}{2} \times 5$
Court 8vo	$4\frac{3}{4} \times 3\frac{3}{4}$	Brief	14×5
Large 8vo	$4\frac{1}{4} \times 5\frac{1}{4}$	Deed	12×9
Foolscap	$8\frac{3}{4} \times 4$	Large Deed	12×10

STANDARD SIZES OF DRAWING PAPERS.

	Inches.		Inches.
Foolscap	$16\frac{1}{2} \times 13\frac{1}{4}$	Imperial	30×22
Demy	$20 \times 15\frac{1}{2}$	Colombier	$34\frac{1}{2} \times 23\frac{1}{2}$
Medium	$22 \times 17\frac{1}{2}$	Atlas	34×26
Royal	24×19	Double Elephant	$40 \times 26\frac{3}{4}$
Super Royal	27×19	Antiquarian	53×31
Elephant	28×23		

STANDARD SIZES OF WRAPPING PAPERS.

	Inches.		Inches.
Casing	46×36	Havon Cap	26×21
Double Imperial	45×29	Bag Cap	24×20
Elephant	34×27	Kent Cap	22×18
Imperial	$29 \times 22\frac{1}{2}$		

STANDARD SIZES OF BOARDS.

	Inches.		Inches.
Royal	20×25	Double Elephant	27×40
Imperial	22×32	Atlas	27×34
Post Card Size	$22\frac{1}{2} \times 28\frac{1}{2}$		

Approximate space in depth occupied by 200 words of average English matter set in normal faced types.

* Thin lead = 1½ pt. † Thick lead = 3 pt.

Type Body		Width of Lines												
		2″	2¼″	2½″	2⅝″	3″	3¼″	3½″	3¾″	4″	4¼″	4½″	4⅝″	5″
Brevier or 8 pt.	Solid	3 1/2	3 1/8	2 7/8	2 5/8	2 3/8	2 1/8	2	1 7/8	1 3/4	1 5/8	1 1/2	1 3/8	1 5/16
	Thin*	4 1/8	3 3/4	3 3/8	3 1/8	2 7/8	2 5/8	2 1/2	2 3/8	2 1/8	1 7/8	1 3/4	1 5/8	1 9/16
	Thick†	4 3/4	4 3/8	3 7/8	3 5/8	3 3/8	3	2 7/8	2 3/4	2 3/8	2 1/4	2 1/8	2	1 15/16
Bourgeois or 9 pt.	Solid	3 3/4	3 1/4	3	2 7/8	2 1/2	2 1/4	2 1/8	2	1 7/8	1 3/4	1 5/8	1 9/16	1 1/2
	Thin	4 1/16	3 7/8	3 1/2	3 1/16	2 7/8	2 5/8	2 1/2	2 3/8	2 1/4	2	1 15/16	1 13/16	1 3/4
	Thick	5 1/8	4 3/8	4	3 9/16	3 3/8	3	2 3/4	2 5/8	2 1/2	2 5/16	2 3/16	2 1/16	2
Long Primer or 10 pt.	Solid	4 1/2	3 7/8	3 1/2	3 1/4	3	2 3/4	2 5/8	2 3/8	2 1/4	2 1/8	2	1 7/8	1 13/16
	Thin	5 1/8	4 1/2	4 1/16	3 3/4	3 7/16	3 1/8	3	2 3/4	2 9/16	2 7/16	2 1/4	2 1/8	2 1/16
	Thick	5 7/8	5 1/8	4 5/8	4 1/4	3 7/8	3 5/8	3 3/8	3 1/8	2 3/8	2 13/16	2 1/2	2 7/16	2 3/8
Small Pica or 11 pt.	Solid	6	5 3/8	4 7/8	4 3/8	4	3 3/4	3 7/16	3 3/16	3	2 13/16	2 5/8	2 1/2	2 3/8
	Thin	6 7/8	6 1/8	5 5/8	5	4 1/2	4 1/4	3 7/8	3 5/8	3 3/8	3 1/4	3	2 7/8	2 3/4
	Thick	7 3/4	6 7/8	6 1/4	5 5/8	5	4 3/4	4 3/8	4 1/16	3 7/8	3 5/8	3 5/16	3 1/4	3
Pica or 12 pt.	Solid	6 1/2	5 7/8	5 1/4	4 3/4	4 3/8	4	3 3/4	3 1/2	3 1/4	3 1/16	2 7/8	2 3/4	2 5/8
	Thin	7 1/4	6 5/8	5 7/8	5 3/8	4 7/8	4 1/2	4 1/4	4	3 3/4	3 5/8	3 3/8	3 1/4	3
	Thick	8 1/8	7 5/16	6 1/2	6	5 1/2	5	4 5/8	4 3/8	4 1/8	3 7/8	3 5/8	3 1/2	3 3/8

Table giving the number of copies that can be obtained from letterpress blocks on various papers.

Description of Block	Art Paper		Imitation Art Paper Super-calendered		News or similar Paper	
	Square	Vignette	Square	Vignette	Square	Vignette
Half-tone	50,000	20,000	50,000	20,000	100,000	60,000
,, electro ...	30,000	12,000	40,000	15,000	75,000	50,000
† ,, stereo ...	*	*	25,000	10,000	65,000	40,000
Line	200,000	150,000	175,000	125,000	150,000	100,000
,, electro	175,000	125,000	150,000	100,000	120,000	65,000
† ,, stereo	125,000	70,000	115,000	60,000	90,000	50,000
Wood Cut	300,000	200,000	250,000	200,000	225,000	175,000
,, ,, electro ...	175,000	125,000	150,000	100,000	120,000	65,000
† ,, ,, stereo ...	125,000	70,000	115,000	60,000	90,000	50,000

NOTES.—These figures are subject to considerable variations according as the paper used is coarse or smooth; as the make-ready is careless or the reverse; and as the machinery is new or worn.

*Stereos from fine-grained blocks are not commended.

†Nickel-faced stereos will produce from 15 per cent to 20 per cent more copies.

1. For art papers: use screens from 133 upwards.

2. For imitation art and super-calendered papers: use screens from 90-133.

3. Newspapers: use screens from 60-90. (See page 112.)

4. A half-tone block with light tones in it wears out much quicker than a dark, heavy subject.

5. A line block or woodcut with many fine lines and much detail will obviously wear out much quicker than a strong lined subject.

6. Electros and stereos can only be made from an existing half-tone, line or wood block, or from a forme of type, and are used only as a means of duplicating.

SIZES *of* NEWSPAPER PAGES & COLUMNS

Name	Whole Page	Width of Col.	No. of Cols.
DAILIES:			
Daily Chronicle	19 × 13¾	2¼	6
Daily Express	22 × 16⅛	2¼	7
Daily Graphic	14½ × 10½	2½	4
Daily Mail (Inside and Back)	22 × 16⅛	2¼	7
Daily Mail (Front)	20 × 16⅛	2	8
Daily Mirror	13½ × 10	2½	4
Daily News and Leader	22 × 15¾	2⅛	7
Daily Telegraph	25 × 18	2½	7
Evening News	22 × 16⅛	2¼	7
Evening Standard	17½ × 10¾	2⅝	4
Financial News	22 × 17¼	2⅜	7
Financial Times	22¼ × 17½	2⅜	7
Financier	24 × 17	2¼	7
Globe	18 × 12½	2½	5
Morning Post	24 × 19	2¼	8
Pall Mall Gazette	18 × 11½	2¼	5
Star	15½ × 10½	2	5
Times	22⅛ × 16½	2⅝	6
,, (Front & Back Page)		2¼	7
Westminster Gazette	18 × 12¼	3	4
WEEKLIES:			
Lloyd's News	19 × 13¾	1⅞ & 2¼	6 & 7
News of the World	22 × 16	2¼	7
Observer	22 × 17⅛	2⅜	7
People	18 × 14	1⅞	7
Referee	19 × 15¾	2⅜	6
Reynolds's Newspaper	24½ × 18¼	2¼	8
Sunday Times	22 × 17⅛	2⅜	7
Weekly Dispatch	22 × 16⅛	2¼	7
Weekly Times	17 × 10⅞	2¾	4

SIZES OF CHIEF WEEKLY PERIODICALS

Name	Whole Page	½ p. Across	½ p. Upright	¼ Page
Answers	11 × 8	5½ × 8	11 × 4	5½ × 4
Bystander	10 × 6¼	5 × 6¼	10 × 3⅛	5 × 3⅛
Country Life	12 × 8	6 × 8	12 × 4	6 × 4
Exchange and Mart	11 × 7¼	5½ × 7¼	11 × 3⅝	5½ × 3⅝
Field	14 × 9	7 × 9	14 × 4½	7 × 4½
Gentlewoman	10 × 6½	5 × 6½	10 × 3¼	5 × 3¼
Graphic	14 × 10	7 × 10	14 × 5	7 × 5
Home Notes	7½ × 5	3¾ × 5	7½ × 2½	3½ × 2½
Health & Strength	9 × 6¾	4½ × 6¾	9 × 3⅜	4½ × 3⅜
Illus. London News	14 × 10	7 × 10	14 × 5	7 × 5
John Bull	11 × 9	5½ × 9	11 × 4½	5½ × 4½
Lady	14 × 9	7 × 9	14 × 4⅜	7 × 4⅜
Ladies' Field	12 × 8½	6 × 8½	12 × 4⅛	6 × 4⅛
Ladies' Pictorial	12 × 8½	6 × 8½	12 × 4⅛	6 × 4⅛
Land and Water	12 × 8	6 × 8	12 × 4	6 × 4
London Mail	10 × 7	5 × 7	10 × 3½	5 × 3½
London Opinion	9¾ × 6¼	4¾ × 6¼	9¾ × 3	4¾ × 3
Motor Weeklies	9 × 6½	4½ × 6½	9 × 3¼	4½ × 3¼
Punch	10¼ × 7⅝	5 × 7⅝	10¼ × 3⅛	5 × 3¾
Pearson's Weekly	11 × 8	5½ × 8	11 × 4	5½ × 4
Queen	14 × 9	7 × 9	14 × 4½	7 × 4½
Sketch	12 × 8⅝	6 × 8¼	12 × 4⅛	6 × 4⅛
Sphere	14 × 9⅝	7 × 9⅝	14 × 4¾	7 × 4¾
Sporting & Dramatic	14 × 9⅝	7 × 9⅝	14 × 4¾	7 × 4¾
Tatler	12 × 8¼	6 × 8¼	12 × 4⅛	6 × 4⅛
Tit-Bits	11 × 8	5½ × 8	11 × 4	5½ × 4
Woman's Life	7 × 5	3½ × 5	7 × 2½	3½ × 2½
Passing Show	10 × 7	5 × 7	10 × 3⅜	5 × 3⅜

SIZES *of* CHIEF MONTHLY PERIODICALS
The page of most of the monthlies is $8\frac{1}{4} \times 5\frac{1}{4}$; e.g., the *Grand*, *London*, *Nash's*, *Novel*, *Pearson's*, *Royal*, *Strand*, *Wide World*, *Windsor*, *Woman at Home*.
The *Captain* is $8\frac{1}{4} \times 5\frac{1}{2}$. *Review of Reviews* is 8×6.

A BRIEF NOTE ON COPYRIGHT

AN attempt at comprehensive treatment in small space of such complex things as the laws of copyright is apt merely to make work for lawyers —which Heaven forbid! The following few remarks about the copyright in designs, the registration of trade marks, may, however, be useful and harmless.

The Copyright in Designs

There is no longer a necessity since the Act of 1905 to register designs at Stationers' Hall, it is sufficient to be able to prove first ownership.

With regard to the copyright of pictures, this is determined by custom in lieu of any explicit agreement. In the case of pictures bought from a Gallery the copyright is held to belong to the painter; in the case of a commissioned picture, to the patron giving the commission.

"Copyright, however, does not extend to ideas, or schemes, or systems, or methods; it is confined to their expression; and if their expression is not copied the copyright is not infringed."

(Judgment of Lord Justice Lindley. Hollinrake v. Truswell, 1894.)

Procedure.

Obtain a copy of the Trade Mark Rules, 1906; of the Trade Marks Act, 1905, from the Sales Branch of the Patent Office (price 8d., postage $2\frac{1}{2}$d.).

A registrable Trade Mark must contain or consist of at least one of the following essential particulars:

(1) The name of a company, individual, or firm represented in a special or particular manner;

(2) The signature of the applicant for registration or some predecessor in his business;

(3) An invented word or words:

(4) A word or words having no direct reference to the character or quality of the goods, and not being according to its ordinary signification a geographical name or a surname;

(5) Any other distinctive mark, but a name, signature, or word or words, other than such as fall within the descriptions in the above paragraphs (1), (2), (3), and (4), shall not, except by order of the Board of Trade or the Court, be deemed a distinctive mark:

Provided always that any special or distinctive word or words, letter, numeral, or combination of letters or numerals used as a Trade Mark by the applicant or his predecessors in business before the Thirteenth day of August One thousand eight hundred and seventy-five, which has continued to be used (either in its original form or with additions or alterations not substantially affecting the identity of the same) down to the date of the application for registration shall be registrable as a Trade Mark under this Act.

The documents mentioned above deal with the manner of applying for registration, fees, documents, duration, restrictions, and other relevant matter.

As to the matter of author's copyright, it carries us beyond the scope of this work, while the law is of a most appalling complexity.

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

MEMORANDA

INDEX TO TEXT

Abbreviations, Convenient, 145
Advertisement, Coaxing *v.* Sandbagging, 131
"Copy," 130
Advertisements, Setting of, Some Rules, 131
Art, Definition of Professor Lethaby, 75
Art Paper, Effective Substitutes, 118
Idiotic Nomenclature, 125
Trouble with, 125

"Backing" of Type Panels, 19
Bindery, The, 45
Binding Terms Explained, 46
Blocks, Number of Copies from, 159
Book-binding, Casing, 124
Cheap in Bulk, 122
Library Binding Prices (pre-War), 127
Skins and Leather, 125
Three Classes of, 121
Booklet Covers, Examples of, 84, 87
Pages, Example of, 82-84

Case Room Terms Explained, 21
Chamber of Horrors, 53
Colour, Notes on Second, 69-72
Complexity of Simple Printing Job, 48
Composition, 17, 18
Co-operation of Printer and-Customer, 1
"Copy," Advertisement, 130
Importance of Brevity, 130
Payment "per Thousand," Stupid Method, 130
Preparation of MS., 14, 15
Copyright, A Brief Note on, 162
Corrections, Cost of, 28
Work Entailed, 29
Costs, Reducing Quantity to Increase Quality, 136
Covers, Booklet, Examples of, 84-87
Covers, Overlapping, Treatment of, 45
Customer as Designer, 26
Forbearance of, 47
His Effect on the Standard of Work, 6
Cutting Paper, Methods, 140, 141

Day's Medium, Examples of, 101
Daily Newspaper Spaces, 160
Deckle Edges, 117
Decoration, Function of, in Advertising, 80
Illustrations, 73
Initialling, 67-69
Design, Consistent Series of, in Advertising, 80
Tested by fitness in use, 74
Value of Good, 74
Desk Equipment, 138
Draughtsmen, Hints for, 99
Drawings, Cost of, 74
How to Measure for Blocks, 40
Dummy, Laying out, 26
Making up, 26

Em, Length of, 50
Endpaper Design, 91
Engraving, Colour Half-tone, 97
"Copy" Drawings for Half-tone Engraving, 109
"Copy" Photographic for Half-tone Engraving, 109
Day's Medium, 100
Experiments to be Commended, 112, 113
Half-tone, Price and Quality, 109
Levy Screen, 95
Line and Tone, 93
Mechanical Photogravure, 98
Terms Explained, 42
The Half-tone Principle, 95
Tone, Problem of, 94

Fitness for Use, Test of Design, 74

Folioing, Position of, 67
Forme, Parts of, 20
Founts of Type, Examples of, 54-61

Hand Presses, 10, 11
Headlines, Treatment of, 66, 67
Horrors, Chamber of, 53

Ink Filler, Useful Pattern, 142
Initial Letters, 67, 68
Intaglio Printing, 8

Knowledge of Printing, little, danger of known, greatest danger of, 16

Leads, Sizes of, 62
Lethaby, Professor, on Art and Workmanship, 75
Letter, A Code, 52
Letter Forms, Examples of, 58-61
Letter, Parts of, 52
Levy Screen, Action of, 95
Line Block Drawings, Value of, 73
Lithographic Printing, 7

Machines, Printing, Types of, 10-13
Machine Room, 35
  Terms Explained, 38
Make Ready, Need of, 35-37
Margins, Importance of, 64
  Proportions of, 24
Marking Drawings, Hints on, 39-41
Measuring Vignetted Drawing for Reduction, Method of, 39
Monthly Periodical Spaces, 162
Mystery School of Printing, The, 16

Occasional Printing, 133
Offset, Printing, 9
Old Face Type, Characteristics of, 58
Overlay, Method and Importance of, 35
Over-ornamentation, Danger of, 76

Pages, Booklet, Examples of, 82-84
Page Numbers, Position of, 67
  Opening, Design of, 24
  Proofs, 25
Paper, Art, 120
  Deckle Edges, 117
  Notes on, 117 et seq.
  Sizes of, 154 et seq.
  Surfaces and Textures of, 119, 120
  Terms Explained, 44
  Watermarks, 120
Paste, Convenient Forms of, 139
Photogravure, Mechanical, Principle of, 98
Plates, Engraved, Number of Copies from, 159
Point System, The, 50
Posters, Treatment of, 74, 75
Printing, Complexity of, 5, 48
  Costs, Real and Nominal, 136
  Definition of, 7
  Occasional, for Private Use, 133
  Paper Sizes, 154
  Standard of, 36
  Three General Processes of, 7
Printed Page, Arrangement of, 24
Proof Correcting, Method of, 30-34

Red, Use of, 69-72
Reduced Block, To find Size of, 40-41
Reduction of Drawing, Method of Marking, 39
Register, 19
Relief Printing, 7
Reproduction of Pencil Drawings, 111, 114, 115
Rules, Sizes of, 62

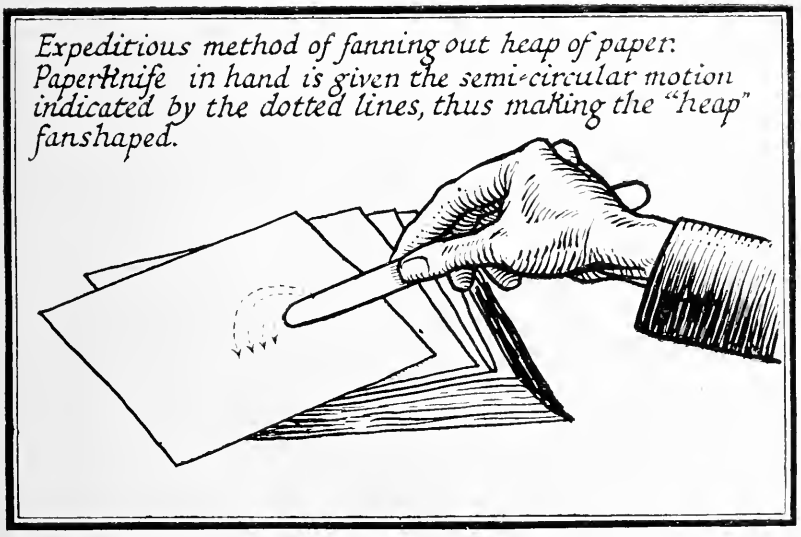
Second Colour, Use of, 69-72
Simplicity of Arrangement, Worth of, 78
Sizes of Papers, etc., 154 et seq.
Solemnity of Business Men, 130

Specification for Library Binding, 123
Standard of Work, Customer's Effect on, 6
Stationery, Examples of, 88

Tables, Daily Newspaper Spaces, 160
Engraved Plates, Number of Copies from, 159
Monthly Periodicals, Spaces, 162
Printing Paper, etc., sizes, 154 et seq.
Type Matter, Space Occupied by, 158
Weekly Newspaper Spaces, 161
Telephone, To Prevent Mistakes in, Messages, 144
Trouble, Care of, 143
Title Page, Treatment of, 24, 65
Titling Letters, Use of, 69
Trade Marks, Two Distinguished, 90
Traveller, Relations with, 2, 4
Work of, 15
Traveller's Revenge, A, 5
Trimming, 45, 46
Type and Type-setting Terms Explained, 21
Casting of, 50
Importance of Legibility, 49, 52
Matter, Space Occupied by, 158
Names and Sizes of, 50
Panels, Position of, 65
Parts of, 52
Point System, 50

Underlay, Method and Importance of, 36

Watermarks, 120
Weekly Newspaper Space, 161
Wood-engraving, Commercial, 105, 106
Words, Calculation of, 27
Table, 158


Expeditious method of fanning out heap of paper: Paperknife in hand is given the semi-circular motion indicated by the dotted lines, thus making the "heap" fanshaped.

INDEX TO ILLUSTRATIONS

Alphabet, A Model, 54

Book, Parts of, 24
Booklets, Reproduced Pages of, 82-84
Brass Rule Cutter, 23

Cards, Sundry Trade, 92
Chase, 20
Composing Stick, 18
Compositor at Case, 17
Copy, Good and Bad, 14
Covers, Reproduced, 84-87
Cylinder Press, 12

Day's Medium, Various Examples of, 101, 102, 104, 108
Design, Commercial, Fine Example of, 77
Desk Equipment, Items of, 138, 142
Dummy, A, 16
  Pricking out, 27

End Paper, An, 91

Galley Proof, 19

Half-tone, Deep Etched, 115
  From Re-touched Photograph, 113
  From Untouched Photograph, 113
  Plate, Section of, 97
  Screens Compared, 112
  "The Indispensables," 116
  Vignetted, 114
  With Tint Block, 114, 115
Handpress, Old Wooden, 10
Headlines, Light and Heavy, 67

Initial Letters, Right and Wrong, 68
Ink Knife, 137
  Roller, 3

Leads, Sizes of, 62
Letter, Parts of, 52
Letters (too horrible), 53
Levy Screen, Position of, 96
Lifting Type, 18
Line Blocks, Copper, 77, 107, 108
  Flat Tints, Example of, 101, 102, 104
Lithographic Method Line Block, Substitute for, 101, 102, 104

Make Ready, Effect of, 37
Mallet and Planer, 63
Margins, Authentic Scheme of, 24
  Margins, Good and Ill, 65
  Of Leaflets and Covers, 25
Marking Copy for Engraving, 39

Page, Ideal Lay-out of, 24
  Tying up, 19
Paper Cutter, 140
  Method of fanning out, 179
  Tearing, Method of, 141
  Various Folds of, 155
"Placing" on a Page, 66
Punch and Matrix, 9

Quoins and Key, 129

Red, Use of, Wrong and Right, 71, 72
Rotary Press, 13

Screens, Half-tone, Compared, 112
Stanhope's Hand Press, 11
  Press, Iron, 11
Stationery, Reproduced, 88, 89

"The Indispensables," 116
Title Page, Centering of, 25
Trade Marks, Two Good, 90
Type, Names and Sizes of, 51
  Parts of, 52
  Various Founts of, 56

Unknown Size of Reduced Parallelogram, Determining, 40

Woodcuts, Commercial, 105, 106
Wooden Hand Press, 10

UNIVERSITY OF CALIFORNIA LIBRARY
Los Angeles
This book is DUE on the last date stamped below.

JUL 6 1965
RECEIVED
LD-URL
JUN 28 1965
AM
7-4
4-9
PM
9-10
RENEWAL
LD URL
MAR 197
REC'D LD-URL
APR 15 1975
APR 28 1975

Form L9–30*m*-11,'58(8268s4)444

AA 000 482 273 0